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jan.delaval@uspto.gov

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129593

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4C70Enter the case serial number (Required):

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Class / Subclass(es) Earliest Priority Filing Date:

Jan 8/19/04

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- *For Chemical Structure Searches Only*
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- *For Sequence Searches Only*
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- *For Foreign Patent Family Searches Only*
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- FAX or send the **abstract, pertinent claims** (not all of the claims), **drawings, or chemical structures** to your EIC or branch library.

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(FILE 'MEDLINE' ENTERED AT 07:34:29 ON 19 AUG 2004)
DEL HIS

FILE 'HCAPLUS' ENTERED AT 07:56:09 ON 19 AUG 2004
E SARANGAPANI S/AU

L1 52 S E3,E4
E TRUONG Q/AU

L2 13 S E3,E7,E18,E19
E ICET/PA,CS

L3 26 S E3-E17

L4 10 S L1,L2 AND L3

L5 81 S L1-L3

L6 12 S L5 AND NOBLE METALS+NT/CT

L7 1 S L5 AND NOBLE METALS+OLD,PFT,RT/CT

L8 12 S L6,L7

L9 1 S L8 AND ANTIBACT?
E CHEMICAL WARFARE/CT

L10 3248 S E4-E7
E E4+ALL

L11 4484 S E2+NT

L12 80160 S E2+OLD,NT,PFT,RT
E E8+ALL

L13 63702 S E2+OLD,NT,PFT,RT
E E1+ALL

L14 118854 S E1,E2,E4-E6,E16-E19,E25-E28,E30-E37,E44-E89

L15 188349 S E1+NT
E E90+ALL

L16 6735 S E1+NT
E TOXIN/CT
E E8+ALL

L17 258767 S E2+OLD,NT,PFT,RT

L18 89049 S E56+OLD,NT,PFT,RT OR E57+OLD,NT,PFT,RT

L19 374765 S L10-L18
E HAZARDOUS MATERIALS/CT

L20 4314 S E3-E20
E E3+ALL

L21 872 S E1
E E2+ALL

L22 64291 S E2,E4,E5,E1+NT
E E27+ALL

L23 290418 S E1+NT

L24 52745 S E28+OLD,NT,PFT,RT

L25 691910 S L19-L24
E HAZARDOUS MATERIALS/CT
E E10+ALL

L26 8968 S E4,E3+NT

L27 691910 S L25,L26

L28 77922 S POLYVINYLALCOHOL OR POLYVINYL ALCOHOL OR POLY() (VINYLALCOHOL

L29 434 S EVAL(S) COPOLYMER

L30 1672 S EVAL

L31 17252 S ETHYLENEVINYLALCOHOL OR ETHYLENEVINYLCOPOLYMER

L32 13187 S L31 AND COPOLYM?

L33 28255 S ETHYLENEVINYLCOPOLYMER OR ETHYLENEVINYLCOPOLYMER ACETATE OR ETHYLENE() (V

L34 27099 S L33 AND COPOLYM?

L35 12226 S EVA

L36 144261 S POLYURETHANE OR POLY URETHANE OR URETHANE(S) POLYM?
E POLYURETHANE/CT

L37 45362 S E119

L38 46011 S POLYURETHANE?/CT,CW

L39 24705 S PTFE

L40 19303 S POLYTETRAFLUOROETHYLENE OR POLYTETRAFLUOROETHYLENE OR POLY()

L41 0 S LC() (3151A OR 3151 A)
 L42 0 S LC3151A
 L43 0 S LC 3151 OR LC3151
 L44 31182 S (ETHYLENEVINYL OR ETHYLENE VINYL) (S)COPOLYM?

FILE 'REGISTRY' ENTERED AT 08:15:12 ON 19 AUG 2004

L45 1 S 9002-89-5
 L46 1 S 557-75-5
 L47 3993 S 557-75-5/CRN AND PMS/CI
 L48 6 S L47 AND C2H4O AND 1/NC
 L49 4 S L48 NOT (TRIMER OR ESTER OR TETRAME)
 L50 4047 S 557-75-5/CRN OR L47
 L51 11 S L50 AND (CU OR ZN OR FE OR AG OR ZN OR BI OR V OR MO)/ELS
 L52 6 S L51 AND CU/ELS
 L53 2 S L52 AND 2/NC
 L54 1 S 25067-34-9
 L55 1 S 74-85-1
 L56 12996 S 74-85-1/CRN
 L57 387 S L50 AND L56
 L58 3 S L57 AND 2/NC
 L59 1 S L57 AND L51
 L60 0 S L59 AND 3/NC
 L61 1 S 24937-78-8
 L62 1969 S (108-05-4 AND 74-85-1)/CRN
 L63 6 S L62 AND 2/NC
 L64 15 S L62 AND (CU OR ZN OR FE OR AG OR BI OR V OR MO)/ELS
 L65 0 S L64 AND 3/NC
 L66 1 S 9002-84-0
 L67 1 S 116-14-3
 L68 4297 S 116-14-3/CRN
 L69 25 S L68 AND (CU OR ZN OR FE OR AG OR BI OR V OR MO)/ELS
 L70 4 S L69 AND 2/NC
 L71 1 S 74-85-1
 L72 12996 S 74-85-1/CRN
 L73 2870 S L72 AND C3H6
 L74 19 S L73 AND 2/NC
 L75 22 S L73 AND (CU OR ZN OR FE OR AG OR BI OR V OR MO)/ELS
 L76 0 S L75 AND 2/NC
 L77 5 S (COPPER OR ZINC OR MOLYBDENUM OR VANADIUM OR IRON)/CN
 L78 178 S (CU OR ZN OR MO OR V OR FE)/MF NOT (ISOTOPE OR MASS)
 L79 1 S SILVER/CN
 L80 51 S AG/MF NOT (ISOTOPE OR MASS)
 E BISMUTH SUBSALICYLATE/CN
 L81 1 S E3
 L82 7 S 14882-18-9/CRN

FILE 'HCAPLUS' ENTERED AT 08:37:19 ON 19 AUG 2004

L83 2 S L53
 L84 57330 S L45, L46, L49
 L85 6211 S L58
 L86 35155 S L61, L63
 L87 45608 S L66, L67
 L88 29041 S L74
 L89 337089 S L28-L44, L84-L88
 L90 1014142 S L77, L78
 L91 159581 S L79, L80, L81
 L92 235 S BISMUTH() (SUBSALICYLATE OR OXYSALICYLATE) OR BASIC BISMUTH SA
 L93 50185 S L89 AND (L90 OR L91 OR L92 OR COPPER OR ZINC OR MOLYBDENUM OR
 L94 379 S L93 AND L27
 L95 14 S L94 AND WARFAR?
 SEL DN AN 2-6 12
 L96 6 S L95 AND E1-E18
 L97 4 S L5 AND L27

L98 6 S L5 AND L28-L44,L84-L88
 L99 6 S L5 AND L90,L91,L92
 L100 14 S L97-L99,L9
 SEL DN AN 1 5 6 7
 L101 4 S L100 AND E19-E30
 L102 365 S L94 NOT L95-L101
 L103 264 S L102 AND (PD<=20000621 OR PRD<=20000621 OR AD<=20000621)
 SEL DN AN 3 7 10 21 25 31 42 60 62 63 65 67 73 74 76 82 83 97 1
 L104 26 S L103 AND E31-E108
 L105 10 S L94 AND TEXTIL?/SC,SX,CW
 L106 34 S L94 AND COAT?/SC,SX,CW
 L107 8 S L94 AND ?LAMINAT?
 E CLOTHING/CT
 E E3+ALL
 L108 1 S L94 AND E2,E1+NT
 E E35+ALL
 L109 10 S L94 AND E2,E1+NT
 L110 34 S L94 AND (E30,E1+OLD,NT,PFT,RT OR E31+OLD OR E32+OLD,NT,PFT,RT
 L111 76 S L94 AND (?FIBR? OR ?FIBER?)
 L112 113 S L105-L111
 L113 81 S L112 AND (PD<=20000621 OR PRD<=20000621 OR AD<=20000621)
 SEL DN AN 2 4-7 9 10 13 14 19 21 24-29 31 33-35 42 46 53 57 79
 L114 26 S L113 AND E1-E78
 L115 50 S L9,L96,L101,L104,L114
 L116 50 S L115 AND L1-L44,L83-L115
 L117 4 S L116 AND L5
 L118 46 S L115 NOT L117
 SEL DN AN 2 5 7 10 12 14-16 18-22 25-28 32 33 36-40 42 43
 L119 20 S L118 NOT E79-E156
 L120 24 S L117,L119

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FILE COVERS 1907 - 19 Aug 2004 VOL 141 ISS 8
 FILE LAST UPDATED: 18 Aug 2004 (20040818/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l120 all hitstr tot

L120 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:1001602 HCAPLUS
 DN 140:44505
 ED Entered STN: 24 Dec 2003
 TI Method and composition for forming water impermeable barrier
 IN Hessert, James E.; Wallace, D. Daniel; Delong, Jimmy D.; Neef, Charles J.

PA Wallace, Inc., USA
 SO U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 748,342, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C09K003-00

ICS C09K007-02

NCL 507225000; 507209000; 507211000; 507214000; 507215000; 507216000;
 507224000; 507229000; 507903000

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
 Section cross-reference(s): 38, 61

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6667279	B1	20031223	US 1997-969680	19971113 <--
PRAI	US 1996-748342	B2	19961113	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6667279	ICM	C09K003-00
	ICS	C09K007-02
	NCL	507225000; 507209000; 507211000; 507214000; 507215000; 507216000; 507224000; 507229000; 507903000

AB The swellable polymer gel composition for use in subterranean formations comprises water, a water soluble polymer, a water soluble crosslinking system and a swelling agent. The crosslinking system may be either a redox system or a chelating system. The amts. of the polymer and the crosslinking system are effective to form a substantially uniformly reacted tri-dimensional gel structure. A swelling agent is added to the gel solution in an amount sufficient to increase the volume of the gel a predetd.

percentage. The swelling agent may be a natural or a synthetic agent. A strengthening agent may be added to increase the gel strength of the composition. The composition has numerous uses and is particularly useful in oil

industry applications such as plugging wells, sealing casing leaks and reducing water production from water-bearing hydrocarbon formations. The composition is economically produced, preserves the wellbore for future reentry in plugging operations, inhibits corrosion of casing by the hydration of water, inhibits the leaching of hazardous metal into the environment, and continuously expands in the presence of water.

ST well treatment fluid water impermeable barrier formation polymer

IT Chromates

RL: NUU (Other use, unclassified); USES (Uses)
 (alkali metal, crosslinking agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT Phosphates, uses

RL: NUU (Other use, unclassified); USES (Uses)
 (chelating agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT Alkali metal oxides

RL: NUU (Other use, unclassified); USES (Uses)
 (chromium oxides, crosslinking agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT Water pollution

(control; method and composition for forming water impermeable barrier in oil and gas wells)

IT Acrylic polymers, uses

Polysaccharides, uses

RL: NUU (Other use, unclassified); USES (Uses)
 (encapsulation material; method and composition for forming water impermeable barrier in oil and gas wells)

IT Sand

IT RL: NUU (Other use, unclassified); USES (Uses)
 (finely divided natural; proppant; method and composition for forming water impermeable barrier in oil and gas wells)

IT Plastics, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (finely divided particles; proppant; method and composition for forming water impermeable barrier in oil and gas wells)

IT Cottonseed
 (hulls; proppant; method and composition for forming water impermeable barrier in oil and gas wells)

IT Transition metals, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (ions; method and composition for forming water impermeable barrier in oil and gas wells)

IT Geological structures (subsurface)
 Natural gas wells
 Oil wells
 Well treatment fluids
 (method and composition for forming water impermeable barrier in oil and gas wells)

IT Clays, uses
 Diatomite
 Natural fibers
 Synthetic fibers
 RL: NUU (Other use, unclassified); USES (Uses)
 (proppant; method and composition for forming water impermeable barrier in oil and gas wells)

IT Nut (seed)
 (shells, ground; proppant; method and composition for forming water impermeable barrier in oil and gas wells)

IT Gelatins, uses
 Sulfobetaines
 RL: NUU (Other use, unclassified); USES (Uses)
 (swelling agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT 50-21-5D, Lactic acid, derivs. 64-19-7D, Acetic acid, derivs.
 77-92-9D, Citric acid, derivs. 87-69-4D, Tartaric acid, derivs.
 139-13-9D, Nitrilotriacetic acid, derivs. 526-95-4D, Gluconic acid, derivs. 20499-58-5, Metaphosphite 634922-32-0, Metaphosphorous acid (H3P3O6)
 RL: NUU (Other use, unclassified); USES (Uses)
 (chelating agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT 7788-98-9, Ammonium chromate 7789-09-5, Ammonium dichromate 9003-04-7, Polyacrylic acid, sodium salt 10588-01-9, Sodium dichromate 15543-40-5, Zirconium ion(4+), uses 16043-45-1, Titanium ion (Ti4+), uses 16065-83-1, Chromium ion(3+), uses 20074-52-6, Ferric ion, uses 22537-23-1, Aluminum ion, uses 22537-50-4, Tin ion(4+), uses 60676-90-6, Zirconium lactate
 RL: NUU (Other use, unclassified); USES (Uses)
 (crosslinking agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT 502-97-6, Glycolide 9000-07-1, Carrageenan 9003-05-8D, Polyacrylamide, partially hydrolyzed 9004-32-4, Carboxymethyl cellulose sodium salt 9004-34-6, Cellulose, uses 9005-25-8D, Starch, derivs. 15802-18-3D, α -Cyanoacrylic acid, alkyl derivs, polymers
 RL: NUU (Other use, unclassified); USES (Uses)
 (encapsulation material; method and composition for forming water impermeable barrier in oil and gas wells)

IT 513-77-9, Barium carbonate 7631-86-9, Silica, uses 7727-43-7, Barium sulfate 9000-01-5, Arabic gum 9002-18-0, Agar 13462-86-7, Barite
 RL: NUU (Other use, unclassified); USES (Uses)
 (proppant; method and composition for forming water impermeable barrier in

oil and gas wells)

IT 7772-98-7, Sodium thiosulfate 7783-18-8, Ammonium thiosulfate
 RL: NUU (Other use, unclassified); USES (Uses)
 (reducing agent, crosslinking agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT 62-55-5, Thioacetamide 62-56-6, Thiourea, uses 123-31-9, Hydroquinone, uses 619-67-0, p-Hydrazinobenzoic acid 1313-82-2, Sodium sulfide, uses 5341-61-7, Hydrazine dihydrochloride 7631-90-5, Sodium bisulfite 7681-57-4, Sodium metabisulfite 7720-78-7, Ferrous sulfate 7757-83-7, Sodium sulfite 7758-94-3, Ferrous chloride 7775-14-6, Sodium hydrosulfite 10117-38-1, Potassium sulfite 10294-66-3, Potassium thiosulfate 14907-13-2, Disulfurous acid, potassium salt 16731-55-8, Potassium metabisulfite 71247-41-1
 RL: NUU (Other use, unclassified); USES (Uses)
 (reducing agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT 9012-76-4, Chitosan
 RL: NUU (Other use, unclassified); USES (Uses)
 (swelling agent, encapsulation material; method and composition for forming water impermeable barrier in oil and gas wells)

IT 56-86-0, L-Glutamic acid, uses 75-21-8, Ethylene oxide, uses 79-06-1, Acrylamide, uses 79-06-1D, Acrylamide, N-alkyl and N,N-dialkyl derivs. 79-10-7, Acrylic acid, uses 88-12-0, uses 97-65-4D, Itaconic acid, mono-N-alkyl derivs. 107-13-1, Acrylonitrile, uses 557-75-5, Vinyl alcohol, uses 868-77-9, 2-Hydroxyethyl methacrylate 9000-69-5, Pectin 9004-61-9, Hyaluronic acid 9005-25-8, Starch, uses 9037-22-3, Amylopectin 11114-20-8, κ -Carrageenan 25085-02-3, Acrylamide sodium acrylate copolymer 31212-13-2, Acrylamide potassium acrylate copolymer
 RL: NUU (Other use, unclassified); USES (Uses)
 (swelling agent; method and composition for forming water impermeable barrier in oil and gas wells)

IT 9003-05-8, Acrylamide homopolymer 9003-06-9, Acrylamide-acrylic acid copolymer 9004-34-6D, Cellulose, ethers 25014-12-4, Methacrylamide homopolymer 26124-23-2, Acrylamide-vinylpyrrolidone copolymer 26659-19-8, Acrylic acid-Methacrylamide copolymer 28501-56-6, Acrylamide-methacrylamide copolymer 38193-60-1, Acrylamide-sodium 2-acrylamido-2-methylpropanesulfonate copolymer 92815-97-9
 RL: NUU (Other use, unclassified); USES (Uses)
 (water-soluble polymer; method and composition for forming water impermeable barrier in oil and gas wells)

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (7) Chesney; US 4447267 A 1984 HCPLUS
- (8) Clampitt; US 3757863 A 1973 HCPLUS
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- (12) Dobson; US 5514644 A 1996 HCPLUS
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- (42) Sydansk; US 5372462 A 1994
- (43) Sydansk; US 5834406 A 1998
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- (45) Zetmeir; US 3964923 A 1976 HCPLUS

IT 20074-52-6, Ferric ion, uses

RL: NUU (Other use, unclassified); USES (Uses)
 (crosslinking agent; method and composition for forming water impermeable barrier in oil and gas wells)

RN 20074-52-6 HCPLUS

CN Iron, ion (Fe³⁺) (8CI, 9CI) (CA INDEX NAME)

Fe³⁺

IT 557-75-5, Vinyl alcohol, uses

RL: NUU (Other use, unclassified); USES (Uses)
 (swelling agent; method and composition for forming water impermeable barrier in oil and gas wells)

RN 557-75-5 HCPLUS

CN Ethenol (9CI) (CA INDEX NAME)

H₂C=CH-OH

L120 ANSWER 2 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:734176 HCPLUS

DN 140:340633

ED Entered STN: 19 Sep 2003

TI Chemical and biological protection and detection in fabrics for protective clothing

AU Schreuder-Gibson, Heidi L.; Truong, Quoc; Walker, John E.; Owens, Jeffery R.; Wander, Joseph D.; Jones, Wayne E., Jr.

CS U.S. Army Natick Soldier Center, SS+TD, Natick, MA, 01760-5020, USA

SO MRS Bulletin (2003), 28(8), 574-578

CODEN: MRSBEA; ISSN: 0883-7694

PB Materials Research Society

DT Journal; General Review

LA English

CC 40-0 (Textiles and Fibers)

AB A review. Military, firefighter, law enforcement, and medical personnel require high-level protection when dealing with chemical and biol. threats in many environments ranging from combat to urban, agricultural, and industrial. Current protective clothing is based on full barrier protection, such as hazardous materials (HAZMAT) suits, or permeable adsorptive protective overgarments, such as those used by the U.S. military. New protective garment systems are envisioned that contain novel features, such as the capability to selectively block toxic chems., to chemically destroy toxic materials that contact the fabric, and to detect hazardous agents on the surface of the fabric. New technologies being built into advanced fabrics for enhanced chemical and biol. protection include selectively permeable membranes, reactive nanoparticles, reactive nanofibers, biocidal fabric treatments, and conductive-polymer indicators on optical fibers.

ST review chem biol protection detection fabric protective clothing; hazardous material fabric protective clothing review

IT **Chemical warfare agents**

- Health hazard**
- Textiles**
(chemical and biol. protection and detection in fabrics for protective clothing against hazardous materials)
- Safety devices**
(chemical protective clothing; chemical and biol. protection and detection in fabrics for protective clothing against hazardous materials)
- Clothing**
(chemical protective; chemical and biol. protection and detection in fabrics for protective clothing against hazardous materials)
- Safety devices**
(protective clothing; chemical and biol. protection and detection in fabrics for protective clothing against hazardous materials)
- Clothing**
(protective; chemical and biol. protection and detection in fabrics for protective clothing against hazardous materials)
- Nanofibers**
- Nanoparticles**
(reactive; chemical and biol. protection and detection in fabrics for protective clothing against hazardous materials)

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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L120 ANSWER 3 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:174351 HCPLUS
 DN 138:217807
 ED Entered STN: 07 Mar 2003

TI Microarrays and their manufacture by slicing bundled compound-containing fibers

IN Anderson, N. Leigh; Anderson, Norman G.; Braatz, James A.

PA USA

SO U.S. Pat.. Appl. Publ., 39 pp., Cont.-in-part of U.S. Ser. No. 628,339.
 CODEN: USXXCO

DT Patent

LA English

IC ICM C12Q001-68

ICS G01N033-53; G01N033-542; C12M001-34

NCL 435007900; 435006000; 435287200

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 15

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003044855	A1	20030306	US 2002-61969	20020125 <--
	US 6713309	B1	20040330	US 2000-482460	20000113 <--
PRAI	US 1999-146653P	P	19990730	<--	
	US 2000-482460	A2	20000113	<--	
	US 2000-628339	A2	20000728		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2003044855	ICM	C12Q001-68	
	ICS	G01N033-53; G01N033-542; C12M001-34	
	NCL	435007900; 435006000; 435287200	
US 2003044855	ECLA	B01J019/00C; G01N033/543H; G01N033/543K	<--
US 6713309	ECLA	B01J019/00C; B01L003/00C2D8; C12Q001/68B10A; G01N033/543H; G01N033/543K	<--

AB Microarrays are prepared by using a sep. fiber for each compound being used in the microarray. The fibers are bundled and sectioned to form a thin microarray that may be glued to a backing.

Antibodies to human serum albumin, transferrin, and haptoglobin were immobilized and crosslinked to Poros G particles. Each of the types of antibody-bearing particles plus particles free of antibodies was mixed with melted agarose and a different food coloring and sucked into a length of 1 mm diameter plastic tubing and gelled into rods. The rods were laid into an aluminum channel with more melted agarose to form an array of parallel rods embedded in a square cross-section bar of agarose. After the bar gelled, the gel was removed from the mold and transverse sections were prepared by slicing thin slices perpendicular to the axis of the bar and mounted on a glass slide.

ST microarray manuf slicing bundled fiber; immobilized antibody agarose rod bundle slice microarray

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(IgG, immobilized antibodies to, of human and rat; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Gels
(agent in; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Synthetic polymeric fibers, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(alginate, fibers of heterogeneous matrix containing; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Rat
(antibodies to IgG of human and; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Particles
(as solid phases immobilizing agents and embedded in fibers of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Antibodies and Immunoglobulins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(autoantibodies, to mitochondrial or lysosomal proteins; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Analysis
(binding assay; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with horseradish peroxidase; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Glass, uses
RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(controlled pore, with immobilized monoclonal antibodies; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Concentration (condition)
(different fibers containing agent at different; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Colloids

Hydrogels
(fibers of heterogeneous matrix containing; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Clays, uses

Glass fibers, uses

Plastics, uses

Waxes

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (fibers of heterogeneous matrix containing; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Immunoassay
 (fluorescence; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Cell
 (fraction immobilized in or on fiber of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Polymers, preparation
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (gelling, in immobilization of agents and formation of fibers ; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Streptococcus pyogenes
 (group A, cloning and replica plating in glass capillary arrays; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Haptoglobin
 Transferrins
 RL: ANT (Analyte); ANST (Analytical study)
 (immobilized antibodies to human; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Animal cell
 Microorganism
 Organelle
 Plant cell
 (immobilized in or on fiber of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Antigens
 Macromolecular compounds
 Nucleic acids
 Polysaccharides, uses
 Receptors
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 (immobilized in or on fiber of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Antibodies and Immunoglobulins
 Ligands
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 (immobilized, in or on fiber of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Carbohydrates, uses
 DNA
 Lipids, uses
 Oligonucleotides
 Peptides, uses
 Proteins
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 (immobilized; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT Lysosome
 Mitochondria
 (impregnation in JB-4 resin; microarrays and their manufacture by slicing bundled compound-containing fibers)

- IT Sonication
 - (in dispersion of immobilized antibodies in methacrylate polymer; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Casting process
 - Liquids
 - Polymerization
 - (in immobilization of agents and formation of fibers; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Blood analysis
 - Cutting
 - Diagnosis
 - Drug screening
 - Human
 - Hybridoma
 - Microarray technology
 - Protein microarray technology
 - (microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Polyurethanes, uses
 - RL: NUU (Other use, unclassified); USES (Uses)
 - (microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Proteins
 - RL: BSU (Biological study, unclassified); DEV (Device component use); DGN (Diagnostic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
 - (mitochondrial or lysosomal, detection of autoantibodies to; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Antibodies and Immunoglobulins
 - RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
 - (monoclonal, glass capillary arrays in selection of; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Urine analysis
 - (of Escherichia coli of patient urine; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Immobilization, molecular or cellular
 - (of agents in or on fibers of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Escherichia coli
 - (of patient urine, rapid testing of antibiotic sensitivity of; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Antibodies and Immunoglobulins
 - RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 - (omniconal, immobilized on control pore glass; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Dyes
 - (on fiber of bundle; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Porous materials
 - (particulate, agent immobilized in; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Gelation agents
 - (polymer, in immobilization of agents and formation of fibers; microarrays and their manufacture by slicing bundled compound-containing fibers)
- IT Particles

(porous, agent immobilized in; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Antibiotics
 (sensitivity testing; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Blood serum
 (serum albumin and transferrin and haptoglobin subtraction from; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Albumins, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (serum, immobilized antibodies to human; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Holders
 (sliced bundle of **fibers** mounting on; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Glass, uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (slides as support for diagnostic array for detecting autoantibodies; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Organic compounds, uses
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 (small, immobilized; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Fluoropolymers, biological studies
 RL: ARG (Analytical reagent use); DEV (Device component use); DGN (Diagnostic use); TEM (Technical or engineered material use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (tubing, containing mitochondria or lysosomes embedded in JB-4 resin; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Fibers
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 (with immobilized agents; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Microspheres
 (with immobilized antibodies, microarray of polymethacrylate **fibers** containing; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT Macroglobulins
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
 (α_2 -, immobilized monoclonal antibodies to human serum albumin or to; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT 282542-78-3, ImmunoBed
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (as embedding material for immobilized antibodies; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT 500777-49-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (biotinylated anti-IgG immobilization in columns containing beads of; microarrays and their manufacture by slicing bundled compound-containing **fibers**)

IT 9003-05-8, Polyacrylamide

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (embedding of monoclonal antibodies immobilized on control pore glass; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 9004-54-0, Dextran, uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (fibers of heterogeneous matrix containing; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 25087-26-7, Polymethacrylic acid
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (fibers; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 58-85-5D, Biotin, conjugates with anti-IgG
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (immobilization on UltraLink Immobilized Streptavidin Plus beads in columns; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 36875-25-9, Dimethylpimelimidate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in antibody immobilization on Poros G particles; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 72-57-1, Trypan blue 7262-41-1, Fluorescein acetate
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (in rapid testing of antibiotic sensitivity of Escherichia coli of patient urine; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 500780-77-8DP, Poros G, reaction products with antibodies
 RL: ARG (Analytical reagent use); DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 9003-99-0D, Peroxidase, conjugates with goat anti-human globulin
 RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 122157-68-0, JB 4
 RL: ARG (Analytical reagent use); DEV (Device component use); DGN (Diagnostic use); TEM (Technical or engineered material use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (mitochondria or lysosomes embedded in; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 111-30-8, Glutaraldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (mitochondria or lysosomes fixed with; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 9012-36-6, Agarose
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (plastic tubing embedded in agarose and containing antibody-bearing particles mixed with food coloring and; microarrays and their manufacture by slicing bundled compound-containing fibers)

IT 60-54-8, Tetracycline 67-20-9, Nitrofurantoin 69-53-4, Ampicillin 87-08-1, Penicillin V 114-07-8, Erythromycin 144-82-1, Sulfamethiazole 738-70-5, Trimethoprim 53994-73-3, Cefaclor 82419-36-1, Ofloxacin
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);

THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (rapid testing of sensitivity to, of Escherichia coli of patient urine;
 microarrays and their manufacture by slicing bundled compound-containing
fibers)

IT 25608-33-7
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM
 (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (tubes of immobilized antibodies embedding in; microarrays and their
 manufacture by slicing bundled compound-containing **fibers**)

IT 9002-84-0, Teflon
 RL: ARG (Analytical reagent use); DEV (Device component use); DGN
 (Diagnostic use); TEM (Technical or engineered material use); ANST
 (Analytical study); BIOL (Biological study); USES (Uses)
 (tubing, containing mitochondria or lysosomes embedded in JB-4 resin;
 microarrays and their manufacture by slicing bundled compound-containing
fibers)

IT 500769-36-8
 RL: ARG (Analytical reagent use); DEV (Device component use); TEM
 (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (with immobilized antibody; microarrays and their manufacture by slicing
 bundled compound-containing **fibers**)

IT 9002-84-0, Teflon
 RL: ARG (Analytical reagent use); DEV (Device component use); DGN
 (Diagnostic use); TEM (Technical or engineered material use); ANST
 (Analytical study); BIOL (Biological study); USES (Uses)
 (tubing, containing mitochondria or lysosomes embedded in JB-4 resin;
 microarrays and their manufacture by slicing bundled compound-containing
fibers)

RN 9002-84-0 HCAPLUS
 CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1
 CRN 116-14-3
 CMF C2 F4



L120 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:444503 HCAPLUS
 DN 137:24321
 ED Entered STN: 13 Jun 2002
 TI Active topical skin protectants using reactive nanoparticles
 IN Hobson, Stephen T.; Braue, Ernest H., Jr.; Lehnert, Erich K.; Klabunde,
 Kenneth J.; Koper, Olga P.; Decker, Shawn
 PA United States Dept. of the Army, USA; Nanoscale Materials, Inc.
 SO U.S., 13 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM A61K031-02
 ICS A61K031-08; A61K047-00; A61K007-42
 NCL 514759000
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6403653	B1	20020611	US 2001-871747	20010601 <--
US 6410603	B1	20020625	US 2001-871744	20010601 <--
US 6410604	B1	20020625	US 2001-871749	20010601 <--
US 6414039	B1	20020702	US 2001-871746	20010601 <--
US 6420434	B1	20020716	US 2001-872096	20010601 <--
US 6437005	B1	20020820	US 2001-871745	20010601 <--
US 6472437	B1	20021029	US 2001-871743	20010601 <--
US 6472438	B1	20021029	US 2001-872095	20010601 <--
PRAI US 2000-209337P	P	20000602 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6403653	ICM A61K031-02	
	ICS A61K031-08; A61K047-00; A61K007-42	
	NCL 514759000	

AB A topical skin protectant formulation containing a barrier cream and an active moiety for protecting warfighters and civilians against all types of harmful chems., specifically chemical **warfare** agents (CWA's) is claimed. The topical skin protectant offers a barrier property and an active moiety that serves to neutralize chemical **warfare** agents into less toxic agents. A topical skin protectant formulation contained Aerogel TiO₂ 3, **poly(tetrafluoroethylene)** 47, and perfluorinated polyether oil 50%. The above cream showed the greatest protection against soman vapor reducing the amount of soman by 99%.

ST topical skin protectant nanoparticle chem **warfare** agent

IT Chemical warfare agents

Nanoparticles

Stabilizing agents

Sunscreens

Surfactants

(active topical skin protectants using reactive nanoparticles)

IT Alkaline earth oxides

Oxides (inorganic), biological studies

Transition metal oxides

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(active topical skin protectants using reactive nanoparticles)

IT Fluoropolymers, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(active topical skin protectants using reactive nanoparticles)

IT Cosmetics

(barrier creams; active topical skin protectants using reactive nanoparticles)

IT Chemical warfare agents

(nerve gases, G class; active topical skin protectants using reactive nanoparticles)

IT Drug delivery systems

(ointments, creams; active topical skin protectants using reactive nanoparticles)

IT Rare earth metals, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oxides; active topical skin protectants using reactive nanoparticles)

IT Polyethers, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(perfluoro; active topical skin protectants using reactive nanoparticles)

IT Organic compounds, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(phosphorus-containing; active topical skin protectants using reactive nanoparticles)

IT Fluoropolymers, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyether-, perfluoro; active topical skin protectants using reactive nanoparticles)

IT Drug delivery systems
 (topical; active topical skin protectants using reactive nanoparticles)

IT 96-64-0, Soman. 505-60-2, Sulfur mustard
 50782-69-9, VX.
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (active topical skin protectants using reactive nanoparticles)

IT 1305-78-8, Calcium oxide, biological studies 1306-38-3, Cerium oxide,
 biological studies 1309-48-4, Magnesium oxide, biological studies
 1314-13-2, Zinc oxide, biological studies 13463-67-7, Titanium
 oxide, biological studies
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (active topical skin protectants using reactive nanoparticles)

IT 9002-84-0, Poly(tetrafluoroethylene)
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (active topical skin protectants using reactive nanoparticles)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

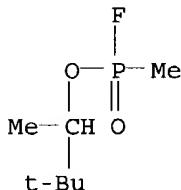
- (1) Arroyo; Jnl of Pharm and Toxicol Methods 1995, V33(2), P109 HCPLUS
- (2) Jenner; US 6224885 B1 2001 HCPLUS
- (3) Klabunde; US 5914436 A 1999 HCPLUS
- (4) Klabunde; US 5990373 A 1999 HCPLUS
- (5) Koper; US 6057488 A 2000 HCPLUS
- (6) Marsh; US 4649037 A 1987 HCPLUS
- (7) McCreery; US 5607979 A 1997 HCPLUS
- (8) Smith; Jnl of the American Acad of Dermatology, part 1 1995, V32(5), P765

IT 96-64-0, Soman. 505-60-2, Sulfur mustard
 50782-69-9, VX.

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (active topical skin protectants using reactive nanoparticles)

RN 96-64-0 HCPLUS

CN Phosphonofluoridic acid, methyl-, 1,2,2-trimethylpropyl ester (6CI, 7CI,
 8CI, 9CI) (CA INDEX NAME)



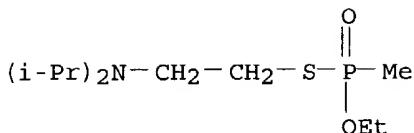
RN 505-60-2 HCPLUS

CN Ethane, 1,1'-thiobis[2-chloro- (9CI) (CA INDEX NAME)

ClCH₂—CH₂—S—CH₂—CH₂Cl

RN 50782-69-9 HCPLUS

CN Phosphonothioic acid, methyl-, S-[2-[bis(1-methylethyl)amino]ethyl]
 O-ethyl ester (9CI) (CA INDEX NAME)



IT 9002-84-0, Poly(tetrafluoroethylene)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(active topical skin protectants using reactive nanoparticles)

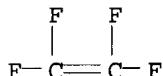
RN 9002-84-0 HCPLUS

CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3

CMF C2 F4



L120 ANSWER 5 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2002:360095 HCPLUS

DN 136:344857

ED Entered STN: 15 May 2002

TI Immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents

IN Chang, Eddie L.

PA United States Dept. of the Navy, USA

SO U. S. Pat. Appl., 36 pp., Avail. NTIS Order No. PAT-APPL-9-862 418.
CODEN: XAXXAV

DT Patent

LA English

CC 59-6 (Air Pollution and Industrial Hygiene)

Section cross-reference(s): 5, 38, 50, 60

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 862418	A0	20011009	US 2001-862418	20010523
	US 2003054949	A1	20030320		
PRAI	US 2001-862418		20010523		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

US 862418

AB Polymer-supported immobilized metal chelate complexes are synthesized and used as reagents for the adsorption and catalytic hydrolysis of phosphorus-containing esters, especially phosphates, phosphorofluoridates, phosphonates, and phosphorothionates typically encountered as chemical **warfare** nerve agents and pesticides. These immobilized metal chelate complexes can be in the form of polymers, micelles, liposomes, phospholipids, tubules, and other self-organized assocns. The polymers can be prepared in the presence of a target compound so that the active sites can be molecularly imprinted for better selectivity. Such polymers, which are typically functionalized polyurethanes, acrylates, and vinyl polymers containing ligand groups, can efficiently decontaminate the above phosphorus-containing esters (e.g., methylparathion and 4-nitrophenyl

ST phosphate) in a practical and cost-effective manner.

ST immobilized metal chelate complex hydrolysis pesticide nerve gas; chem warfare agent phosphate ester hydrolysis metal chelate polymer; phospholipid immobilized metal chelate complex hydrolysis pesticide nerve agent; polyurethane immobilized metal chelate complex hydrolysis pesticide nerve agent; polyacrylate immobilized metal chelate complex hydrolysis pesticide nerve agent

IT Polymers, processes
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (biodegradable, matrix; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Liposomes
 Micelles
 (catalysts; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Lipids, processes
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (glycerolipids, iminodiacetate derivs., metal complexes; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Polymer-supported reagents
 (immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Polyurethanes, processes
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (matrix, biodegradable; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Phospholipids, processes
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (metal chelate derivs.; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Hydrolysis catalysts
 (metal chelates; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Chelates
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (metal; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Chemical warfare agents
 (nerve gases, phosphorus-containing, decontamination of; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical warfare nerve agents)

IT Self-association
 (of immobilized metal chelates; immobilized and polymer-supported metal

chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT Hydrolysis
 Hydrolysis kinetics
 (of phosphorus-containing esters; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT **Chemical warfare agents**
 Pesticides
 (phosphorus-containing, decontamination of; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT Amines, processes
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (polyamines, nonpolymeric, reaction products, with 2-ethyl-2-(hydroxymethyl)propane trimethacrylate, metal complexes; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT **Polyurethanes, processes**
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (reaction products, with nonpolymeric polyamines, matrix, biodegradable; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT 298-00-0, Methyl parathion
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); REM (Removal or disposal); PROC (Process); RACT (Reactant or reagent)
 (hydrolysis and decontamination of; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT 107-15-3DP, Ethylene diamine, reaction products with biodegradable polyurethanes, metal chelate derivs. 111-40-0DP,
 Diethylenetriamine, reaction products with biodegradable polyurethanes, metal chelate derivs. 1760-24-3DP,
 N-[3-(Trimethoxysilyl)propyl]ethylenediamine, reaction products with silica, metal complex derivs. 3290-92-4DP, Trimethylolpropane trimethacrylate, reaction products with polyamines, metal chelate derivs. 7447-39-4DP, **Copper** chloride (CuCl₂), complexes with functionalized polymers 7631-86-9DP, Silica, reaction products with N-[3-(trimethoxysilyl)propyl]ethylenediamine, metal chelate derivs. 13770-18-8DP, **Copper** diperchlorate, complexes with functionalized polymers 15158-11-9DP, **Copper**(2+), complexes with polymers, processes 377073-41-1DP, Prepol, metal chelate complexes 415919-02-7DP, complexes with **cupric** chloride 415919-09-4DP, complexes with Cu(2+) salts 415919-10-7DP, complexes with Cu(2+) salts 415919-11-8DP, **copper**(2+) complexes 415919-14-1DP, complexes with **cupric** nitrate 415919-15-2DP, complexes with **cupric** nitrate
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (hydrolysis catalysts; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT 7664-38-2D, Phosphoric acid, esters 13537-32-1D, Phosphorofluoridic acid, esters 13598-36-2D, Phosphonic acid, esters 13598-51-1D, Phosphorothioic acid, esters

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); REM (Removal or disposal); PROC (Process); RACT (Reactant or reagent)
 (hydrolysis of; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT 330-13-2, 4-Nitrophenyl phosphate 645-15-8, Bis(4-nitrophenyl) phosphate
 RL: RCT (Reactant); REM (Removal or disposal); PROC (Process); RACT (Reactant or reagent)
 (model phosphate ester, hydrolysis of; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT 46734-05-8P, 1,2-Ethanediamine, N-(2-aminoethyl)-N-[(4-ethenylphenyl)methyl]- 106673-75-0P, 1,2-Ethanediamine, N-[(4-ethenylphenyl)methyl]- 106673-77-2P, 1,2-Ethanediamine, N-(2-aminoethyl)-N'-(4-ethenylphenyl)methyl]- 415919-02-7P
 415919-04-9P 415919-06-1P 415919-08-3P 415919-09-4P 415919-10-7P
 415919-11-8P 415919-12-9P 415919-13-0P 415919-14-1P 415919-15-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of; in preparation of immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

IT 15158-11-9DP, Copper(2+), complexes with polymers, processes
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (hydrolysis catalysts; immobilized and polymer-supported metal chelate complexes for catalytic hydrolysis and decontamination of pesticides and chemical **warfare** nerve agents)

RN 15158-11-9 HCAPLUS
 CN Copper, ion (Cu²⁺) (8CI, 9CI) (CA INDEX NAME)

Cu²⁺

L120 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:11024 HCAPLUS
 DN 136:82305
 ED Entered STN: 04 Jan 2002
 TI Attachment of biomolecules to surfaces of medical devices for improvement of biocompatibility
 IN Keogh, James R.; Trescony, Paul V.
 PA USA
 SO U.S. Pat. Appl. Publ., 17 pp., Cont.-in-part of U.S. 5,925,552.
 CODEN: USXXCO
 DT Patent
 LA English
 IC C12N011-00; C12N011-16
 NCL 435174000
 CC 9-16 (Biochemical Methods)
 FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002001834	A1	20020103	US 1999-257543	19990224 <--
	US 6617142	B2	20030909		
	US 5821343	A	19981013	US 1996-635187	19960425 <--
	US 5728420	A	19980317	US 1996-694535	19960809 <--
	US 5891506	A	19990406	US 1997-984922	19971204 <--
	US 5945319	A	19990831	US 1997-1994	19971231 <--
	US 6033719	A	20000307	US 1998-12056	19980122 <--

US 5925552	A	19990720	US 1998-67188	19980427 <--
US 2004086543	A1	20040506	US 2003-620180	20030715 <--
PRAI US 1996-635187	A2	19960425	<--	
US 1996-694535	A2	19960809	<--	
US 1997-984922	A2	19971204	<--	
US 1997-1994	A2	19971231	<--	
US 1998-12056	A2	19980122	<--	
US 1998-67188	A2	19980427	<--	
US 1998-10906	A2	19980122	<--	
US 1999-257543	A1	19990224	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
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US 2002001834	IC	C12N011-00IC	C12N011-16
	NCL	435174000	
US 2002001834	ECLA	A61L027/34; A61L029/08B; A61L031/10	<--
US 5821343	ECLA	A61L027/00K; A61L031/00K; A61L033/00E6; A61L033/00F;	
		A61L033/00H2; A61L033/00H3; A61L033/00R2	<--
US 5891506	ECLA	A61L027/28; A61L027/34; A61L027/34; A61L029/08B;	
		A61L031/08; A61L031/10; A61L031/10; A61L033/00H2F	<--
US 5945319	ECLA	A61L027/24; A61L033/00H2; A61L033/00H3; A61L033/00R2;	
		A61L033/12; A61L033/12R; A61L033/18; A61L027/28;	
		A61L027/34; A61L027/34; A61L029/08B; A61L029/08B;	
		A61L031/08; A61L001/10; A61L031/10; A61L033/00H2F	<--
US 6033719	ECLA	A61L027/34; A61L029/08B; A61L031/10; A61L033/00R2	<--
US 5925552	ECLA	A61L027/24; A61L031/08; A61L031/10; A61L031/10;	
		A61L033/00H3; A61L033/00H2F; A61L033/00H2;	
		A61L033/00R2; A61L033/12; A61L033/12R; A61L033/18;	
		A61L027/28; A61L027/34; A61L029/08B; A61L029/08B	<--
US 2004086543	ECLA	A61L027/28; A61L027/34; A61L027/34; A61L029/08B;	
		A61L031/08; A61L031/10; A61L031/10; A61L033/00H2F;	
		A61L033/00H2; A61L033/00H3; A61L033/00R2; A61L033/12;	
		A61L033/18	<--

AB A method for making a medical device having at least one biomol. immobilized on a substrate surface is provided. One method of the present invention includes immobilizing a biomol. comprising an unsubstituted amide moiety on a biomaterial surface. Another method of the present invention includes immobilizing a biomol. on a biomaterial surface comprising an unsubstituted amide moiety. Still another method of the present invention may be employed to crosslink biomols. comprising unsubstituted amide moieties immobilized on medical device surfaces. Addnl., one method of the present invention may be employed to crosslink biomols. comprising unsubstituted amide moieties in solution, thereby forming a crosslinked biomaterial or a crosslinked medical device coating. A method of forming a coating on a surface of a medical device for improvement of biocompatibility is described. The method comprises steps of: oxidizing a biomol. containing 2-aminoalc. moiety with a periodate to form an aldehyde-functional material, combining the aldehyde-functional material with a biomaterial surface containing a primary amine moiety to immobilize the biomol. on the substrate surface through an imine moiety, and reacting the imine moiety with a reducing agent to form an immobilized biomol. on the biomaterial surface through a sec. amine linkage. Another method of the present invention may be employed to crosslink biomols. immobilized on medical device surfaces. Addnl., one method of the present invention may be employed to crosslink biomols., thereby forming a crosslinked biomaterial or a crosslinked medical device coating. E.g., type IV collagen was oxidized with NaIO₄ and the oxidized collagen was then allowed to form crosslinks, thereby bonding the mols. together through imine moieties formed from an aldehyde moiety of one collagen mol. reacting with an amine moiety of a neighboring collagen mol. The imine linkages were then stabilized by Na cyanoborohydride to form sec. amine linkages. The resultant crosslinked material may be employed as a biomaterial or as a biomaterial coating.

ST attachment biomol device surfaces; biomol immobilization medical device
prosthetic biocompatibility; peptide protein immobilization medical device
coating

IT Glycols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(1,2-, reaction with periodate; attachment of biomols. to surfaces of
medical devices for improvement of biocompatibility)

IT Dicarbonyl compounds
RL: RCT (Reactant); RACT (Reactant or reagent)
(1,2-di, reaction with periodate; attachment of biomols. to surfaces of
medical devices for improvement of biocompatibility)

IT Platinum-group metals
RL: DEV (Device component use); USES (Uses)
(alloy, biocompatible material, use on surface; attachment of biomols.
to surfaces of medical devices for improvement of biocompatibility)

IT Bromides, reactions
Chlorides, reactions
Chlorites
Hypochlorites
RL: RGT (Reagent); RACT (Reactant or reagent)
(amine forming agent; attachment of biomols. to surfaces of medical
devices for improvement of biocompatibility)

IT Alcohols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(amino, α -, reaction with periodate, NaIO₄ oxidation of; attachment
of biomols. to surfaces of medical devices for improvement of
biocompatibility)

IT Blood vessel
(artificial; attachment of biomols. to surfaces of medical devices for
improvement of biocompatibility)

IT Biocompatibility
Coating materials
Coating process
Immobilization, molecular or cellular
Medical goods
Pipes and Tubes
Prosthetic materials and Prosthetics
Reducing agents
(attachment of biomols. to surfaces of medical devices for improvement
of biocompatibility)

IT Proteins
RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP
(Physical, engineering or chemical process); BIOL (Biological study); PROC
(Process); USES (Uses)
(attachment, biomol., attachment of biomols. to surfaces of medical
devices for improvement of biocompatibility)

IT Bone
Ceramics
Skin
Tooth
Wood
(biocompatible material, use on surface; attachment of biomols. to
surfaces of medical devices for improvement of biocompatibility)

IT Collagens, uses
Elastins
Fibrins
Fluoropolymers, uses
Glass, uses
Laminins
Metals, uses
Polyamides, uses
Polycarbonates, uses
Polyesters, uses

Polyethers, uses
Polyolefins
Polyurethanes, uses
 Rubber, uses
 Shape memory alloys
 Silicone rubber, uses
 RL: DEV (Device component use); USES (Uses)
 (biocompatible material, use on surface; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Anti-inflammatory agents
 Antibacterial agents
 Antibiotics
 Anticoagulants
 Antimicrobial agents
 Drugs
 Dyes
 Platelet (blood)
 (biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Agglutinins and Lectins
 Antibodies and Immunoglobulins
 Antibodies and Immunoglobulins
Antigens
 Avidins
 Blood-coagulation factors
 Carbohydrates, biological studies
 Cytokines
 DNA
 Enzymes, biological studies
 Fatty acids, biological studies
Fibrinogens
 Glycoproteins
 Growth factors, animal
 Hormones, animal, biological studies
 Ligands
 Neurotransmitters
 Nucleic acids
 Peptides, biological studies
 Polysaccharides, biological studies
 Proteins
 Proteoglycans, biological studies
 RNA
Toxins
 Transport proteins
 Vitamins
 Vitronectin
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Pumps
 (blood; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Medical goods
 (cateters; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Animal tissue
 Blood
 Body fluid
 (contacting medical device; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Amines, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (conversion of amide to, coupling with aldehyde; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Amides, reactions
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (conversion to amine; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Aldehydes, reactions
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (coupling with amine; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Circulation
 (extracorporeal, medical device for; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Proteins
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (fibrous, biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Proteins
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (globular, biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Functional groups
 (guanidino group, surface containing, formation of; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Proteins
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (membrane, biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Heart
 (pacemaker; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Phosphate group
 (reaction with periodate; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Epoxides
 Isocyanates
 Sulfates, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with periodate; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Proteins
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (regulatory, biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Carboxylic acids, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (salts, reaction with periodate; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Medical goods
 (stents; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Proteins
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (structural, biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Bags
 Balloons
 Membranes, nonbiological
 (surface forming; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Fibers
 RL: DEV (Device component use); USES (Uses)
 (surface forming; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Medical goods
 (sutures, surface forming; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Metallic glasses
 RL: DEV (Device component use); USES (Uses)
 (titanium alloy, biocompatible material, use on surface; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Collagens, uses
 RL: DEV (Device component use); USES (Uses)
 (type IV, biocompatible material, use on surface; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Heart
 (valve; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Medical goods
 (wires; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 536-80-1, Iodosylbenzene 546-67-8, Lead tetraacetate 2712-78-9, [Bis(trifluoroacetoxy)iodo]benzene 7726-95-6, Bromine, reactions 7782-50-5, Chlorine, reactions 14380-61-1, Hypochlorite 14380-62-2, Hypobromite 14998-27-7, Chlorite 15477-77-7, Bromite 16887-00-6, Chloride, reactions 27126-76-7, Hydroxy(tosyloxy)iodobenzene 111865-47-5, Benzyltrimethylammonium tribromide
 RL: RGT (Reagent); RACT (Reactant or reagent)
 (amine forming agent; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 1306-06-5, Hydroxyapatite 1344-28-1, Aluminum oxide, uses 7440-06-4, Platinum, uses 7440-22-4D, Silver, carbon coated with 7440-32-6, Titanium, uses 8049-15-8, Elgiloy 8049-28-3, Stellite 9002-84-0, Polytetrafluoroethylene 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-01-4, Polyacrylic acid 9003-07-0, Polypropylene 9003-31-0, Polyisoprene 9003-39-8, Polyvinylpyrrolidone 9003-53-6, Polystyrene 9004-34-6, Cellulose, uses 11110-83-1 12597-68-1, Stainless steel, uses
 RL: DEV (Device component use); USES (Uses)
 (biocompatible material, use on surface; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 58-85-5, Biotin
 RL: BUU (Biological use, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (biomol.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 67-51-6, 3,5-Dimethylpyrazole 420-04-2, Cyanamide 461-58-5, Dicyandiamide 1071-37-0 1184-90-3, Aminoimino methanesulfonic acid 2440-60-0, O-Methylisourea 2986-19-8, S-Methylisothiourea 13882-28-5

14996-02-2, Hydrogen sulfate, reactions 38184-47-3, 3,5-Dimethyl-1-guanylpyrazole nitrate 52328-05-9, O-Methylisouronium sulfate 57538-27-9, 2-Methyl-1-nitroisourea
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (guanidino forming agent; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 7440-44-0, Glassy carbon, uses
 RL: DEV (Device component use); USES (Uses)
 (pyrolytic or glassy or compressed, biocompatible material, use on surface; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 13774-81-7 16940-66-2, Sodium borohydride 25895-60-7, Sodium cyanoborohydride
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (reducing agent; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 14213-97-9, Borate (BO₃3-)
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizing agent; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 15056-35-6, Periodate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (use for aldehyde formation; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 7790-21-8, Potassium periodate 7790-28-5, Sodium periodate 13444-71-8, Periodic acid 15056-35-6D, Periodate, alkali metal
 RL: RGT (Reagent); RACT (Reactant or reagent)
 (use for aldehyde formation; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT 7440-22-4D, Silver, carbon coated with 9002-84-0
 , Polytetrafluoroethylene
 RL: DEV (Device component use); USES (Uses)
 (biocompatible material, use on surface; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

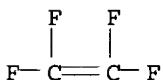
RN 7440-22-4 HCPLUS
 CN Silver (8CI, 9CI) (CA INDEX NAME)

Ag

RN 9002-84-0 HCPLUS
 CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3
 CMF C2 F4



L120 ANSWER 7 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:9866 HCPLUS
 DN 136:65570
 ED Entered STN: 04 Jan 2002
 TI Formulations for neutralization of chemical and biological toxicants

IN Tadros, Maher E.; Tucker, Mark D.

PA Sandia Corporation, USA

SO Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM A62D003-00

CC 4-3 (Toxicology)

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1166825	A1	20020102	EP 2000-204519	20001214
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6566574	B1	20030520	US 2000-607586	20000629
PRAI	US 2000-607586	A	20000629		
	US 1998-109235	B2	19980630		
	US 1999-146432P	P	19990729		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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EP 1166825	ICM	A62D003-00
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AB A formulation and method of making that neutralizes the adverse health effects of both chemical and biol. compds., especially chemical **warfare** (CW) and biol. **warfare** (BW) agents. The formulation of the present invention non-toxic and non-corrosive and can be delivered by a variety of means and in different phases. The formulation provides solubilizing compds. that serve to effectively render the chemical and biol. compds., particularly CW and BW compds., susceptible to attack and at least one reactive compound that serves to attack (and detoxify or kill) the compound. The at least one reactive compound can be an oxidizing compound, a nucleophilic compound or a mixture of both. The formulation can kill up to 99.9999% of bacterial spores within one hour of exposure.

ST chem biol toxicant neutralization; decontaminant chem biol **warfare**; surfactant hydrotrope oxidizer nucleophile decontamination detoxification

IT Alcohols, uses

RL: MOA (Modifier or additive use); USES (Uses)
(C10-16; formulations for neutralization of chemical and biol. toxicants containing)

IT Named reagents and solutions

RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(Fenton's; formulations for neutralization of chemical and biol. toxicants containing)

IT Aromatic hydrocarbons, processes

RL: REM (Removal or disposal); PROC (Process)
(alkyl, o-alkyl; formulations for neutralization of chemical and biol. toxicants)

IT Quaternary ammonium compounds, biological studies

RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(alkylbenzyldimethyl, chlorides; formulations for neutralization of chemical and biol. toxicants containing)

IT Spore

(bacterial; formulations for neutralization of chemical and biol. toxicants)

IT Hydrotropes

Surfactants
(cationic; formulations for neutralization of chemical and biol. toxicants containing)

IT Amines, uses

RL: MOA (Modifier or additive use); USES (Uses)

(copper complexes; formulations for neutralization of chemical and biol. toxicants containing)

IT Halides
 RL: REM (Removal or disposal); PROC (Process)
 (dihalides, dialkyl phosphoramidic; formulations for neutralization of chemical and biol. toxicants)

IT **Bacillus anthracis**
Bacillus subtilis
Pantoea agglomerans
 (efficacy of formulations for neutralization of chemical and biol. toxicants against)

IT **Toxicants**
 (formulations for neutralization of chemical and biol.)

IT Antibacterial agents
Biological warfare agents
Chemical warfare agents
 Decontamination
Detoxification
Eubacteria
Virus
 (formulations for neutralization of chemical and biol. toxicants)

IT **Ricins**
 RL: REM (Removal or disposal); PROC (Process)
 (formulations for neutralization of chemical and biol. toxicants)

IT Catalysts
 Corrosion inhibitors
 Nucleophiles
 Oxidizing agents
 Solvents
 (formulations for neutralization of chemical and biol. toxicants containing)

IT Aldehydes, biological studies
 Metal alkoxides
 Oximes
 Quaternary ammonium compounds, biological studies
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
 (formulations for neutralization of chemical and biol. toxicants containing)

IT Alcohols, biological studies
 RL: BUU (Biological use, unclassified); MSC (Miscellaneous); BIOL (Biological study); USES (Uses)
 (in formulations for neutralization of chemical and biol. toxicants)

IT Fluorides, processes
 RL: REM (Removal or disposal); PROC (Process)
 (o-alkyl phosphono-; formulations for neutralization of chemical and biol. toxicants)

IT Nitriles, processes
 RL: REM (Removal or disposal); PROC (Process)
 (o-alkyl phosphoramido-; formulations for neutralization of chemical and biol. toxicants)

IT Quaternary ammonium compounds, biological studies
 RL: BUU (Biological use, unclassified); MSC (Miscellaneous); BIOL (Biological study); USES (Uses)
 (pentamethyltallow alkyltrimethylenediammonium dichlorides, Adogen 477; in formulations for neutralization of chemical and biol. toxicants)

IT Polymers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (water-soluble; formulations for neutralization of chemical and biol. toxicants containing)

IT 866-97-7, Tetrapentylammonium bromide
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
 (cationic hydrotrope in formulations for neutralization of chemical and biol. toxicants)

IT 1643-19-2, Tetrabutylammonium bromide 88932-02-9
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
 BIOL (Biological study); USES (Uses)
 (cationic hydrotrope; formulations for neutralization of chemical and
 biol. toxicants containing)

IT 121-75-5, Malathion 2524-64-3, Diphenyl chlorophosphate
 RL: NUU (Other use, unclassified); REM (Removal or disposal); PROC
 (Process); USES (Uses)
 (chemical warfare simulant for formulations for neutralization
 of chemical and biol. toxicants)

IT 60-23-1D, Aminoethane-2-thiol, dialkyl derivs. 74-90-8, Hydrogen
 cyanide, processes 75-44-5, Phosgene 76-06-2, Chloropicrin 76-93-7,
 Diphenylhydroxyacetic acid, processes 78-53-5, Amiton 111-48-8D,
 Thiodiglycol, derivs. 141-43-5D, Aminoethan-2-ol, dialkyl derivs.
 382-21-8 464-07-3D, Pinacolyl alcohol, derivs. 505-60-2,
 Bis(2-chloroethyl)sulfide 506-77-4, Cyanogen chloride 541-25-3D,
 Lewisite, analogs 676-97-1, Methylphosphonyl dichloride 689-98-5D,
 Aminoethyl-2-chloride, dialkyl derivs. 756-79-6, Dimethyl
 methylphosphonate 1445-76-7, Chlorosarin 1619-34-7, Quinuclidin-3-ol
 2625-76-5 3563-36-8 6581-06-2, 3-Quinuclidinyl benzilate 7040-57-5,
 Chlorosoman 7719-09-7, Thionyl chloride 7719-12-2, Phosphorous
 trichloride 7784-34-1, Arsenic trichloride 10025-67-9, Sulfur
 monochloride 10025-87-3, Phosphoric trichloride 10026-13-8, Phosphorus
 pentachloride 10545-99-0, Sulfur dichloride 14901-63-4D, Phosphite,
 Alkyl derivs. 35523-89-8, Saxitoxin 63869-13-6 63905-10-2
 63918-89-8, Bis(2-chloroethylthioethyl)ether 63918-90-1 142868-93-7
 142868-94-8
 RL: REM (Removal or disposal); PROC (Process)
 (formulations for neutralization of chemical and biol. toxicants)

IT 57-09-0, Cetyltrimethylammonium bromide 121-54-0, Benzethonium chloride
 124-43-6, Urea hydrogen peroxide 3978-51-6 7681-52-9, Sodium
 hypochlorite 7722-84-1, Hydrogen peroxide, biological studies
 22047-43-4, Peroxymonosulfate
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
 BIOL (Biological study); USES (Uses)
 (formulations for neutralization of chemical and biol. toxicants containing)

IT 102-71-6, Triethanolamine, uses 103-49-1, N,N-Dibenzylamine 108-01-0,
 Dimethylethanolamine 304-91-6 9000-30-0, Guar gum 9002-89-5,
 Polyvinyl alcohol 9003-05-8, Polyacrylamide
 26062-79-3, Polydiallyl dimethylammonium chloride
 RL: MOA (Modifier or additive use); USES (Uses)
 (formulations for neutralization of chemical and biol. toxicants containing)

IT 39421-75-5, JAGUAR 8000
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
 BIOL (Biological study); USES (Uses)
 (in formulations for neutralization of chemical and biol. toxicants)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

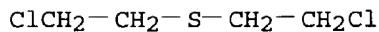
RE

(1) Commissariat Energie Atomique; EP 0526305 A 1993 HCPLUS
 (2) Commissariat Energie Atomique; FR 2775606 A 1999 HCPLUS
 (3) Cronce, D; US 5760089 A 1998 HCPLUS
 (4) Cronce, D; US 5859064 A 1999 HCPLUS
 (5) France, E; FR 2651133 A 1991 HCPLUS
 (6) Irdec S A; EP 0894512 A 1999 HCPLUS
 (7) Irdec Sa; FR 2766724 A 1999 HCPLUS
 (8) Seiders, R; US H366 H 1987
 (9) Stonehill, A; US 3282775 A 1966

IT 505-60-2, Bis(2-chloroethyl)sulfide
 RL: REM (Removal or disposal); PROC (Process)
 (formulations for neutralization of chemical and biol. toxicants)

RN 505-60-2 HCPLUS

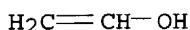
CN Ethane, 1,1'-thiobis[2-chloro- (9CI) (CA INDEX NAME)



IT **9002-89-5, Polyvinyl alcohol**
 RL: MOA (Modifier or additive use); USES (Uses)
 (formulations for neutralization of chemical and biol. toxicants containing)
 RN 9002-89-5 HCPLUS
 CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
 CMF C2 H4 O



L120 ANSWER 8 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2001:749439 HCPLUS

DN 135:253256

ED Entered STN: 15 Oct 2001

TI Super-energy biochemical pesticide-removing and fresh-keeping balls

IN Huang, Xuehong

PA Hainan Yuzhou Energy Development Co., Ltd., Peop. Rep. China

SO Faming Zhuanli Shengqing Gongkai Shuomingshu, 7 pp.

CODEN: CNXKEV

DT Patent

LA Chinese

IC ICM A62D003-00

CC 5-3 (Agrochemical Bioregulators)

Section cross-reference(s): 17, 36

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1292297	A	20010425	CN 1999-120953	19990923 <--
PRAI CN 1999-120953		19990923	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CN 1292297	ICM	A62D003-00

AB The balls are composed of round biochem. ceramic material, oval biochem. ceramic material, and mineral powder 5 g. The balls have round jackets made of **ethylene-vinyl acetate copolymer**. The biochem. ceramic materials contain granite, magnetite, and minerals (such as limestone, Ag ore, etc.). The balls are used in cleaning of vegetable, meat, fabrics, etc.

ST pesticide removing ball vegetable meat fabric

IT **Environmental pollution**

(pesticide; super-energy biochem. pesticide-removing and fresh-keeping balls)

IT **Cleaning**

Meat

Pesticides

Spheres

Textiles

Vegetable

(super-energy biochem. pesticide-removing and fresh-keeping balls)

IT Granite, uses

Limestone, uses

Minerals, uses

Silver ores

RL: TEM (Technical or engineered material use); USES (Uses)
 (super-energy biochem. pesticide-removing and fresh-keeping balls)

IT 1309-38-2, Magnetite, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (super-energy biochem. pesticide-removing and fresh-keeping balls)

L120 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:517513 HCAPLUS

DN 135:111317

ED Entered STN: 18 Jul 2001

TI Treatment agent and method for detoxicating harmful gas from semiconductor device fabrication

IN Otsuka, Kenji; Amishima, Yutaka; Hasemi, Takashi; Nawa, Yoji

PA Japan Pionics, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B01J035-10

ICS B01J023-72; B01J023-889

CC 59-4 (Air Pollution and Industrial Hygiene)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001190965	A2	20010717	JP 2000-312870	20001013 <--
	US 6447576	B1	20020910	US 2000-671139	20000928 <--
	TW 524720	B	20030321	TW 2000-89122423	20001025 <--
	CN 1295875	A	20010523	CN 2000-133741	20001027 <--
PRAI	JP 1999-308472	A	19991029	<--	

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2001190965	ICM	B01J035-10
	ICS	B01J023-72; B01J023-889

AB The agent contains CuO as an efficacious component having $\geq 10 \text{ m}^2/\text{g}$
 BET sp. surface area alternatively together with MnO₂ with $\geq 130 \text{ m}^2/\text{g}$ BET sp. surface area for removing an organometal compound, R_m-M-H_n (R = an alkyl; M = As, P, S, Se or Te; and m + n = the valence of M). A harmful gas containing the organometal compound is detoxicated by bringing the gas into contact with the agent. The agent may further contain a binder, e.g. poly(vinyl alc.), polyethylene glycol, polypropylene glycol, Me cellulose, etc. The harmful gas is from CVD process for semiconductor device fabrication.

ST detoxification agent organometal compd semiconductor device;
cupric oxide organometal waste gas decompn; manganese dioxide organometal waste gas decompn

IT Waste gases
 (from semiconductor device fabrication; organometal compound-containing waste
 gas detoxification by agent containing **cupric** oxide and manganese oxide)

IT **Detoxification**
 Semiconductor device fabrication
 (organometal compound-containing waste gas detoxification by agent containing
cupric oxide and manganese oxide)

IT Diatomite
 Polyoxyalkylenes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (organometal compound-containing waste gas detoxification by agent containing

cupric oxide and manganese oxide)

IT 1344-09-8, Sodium silicate 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 7681-38-1, Sodium hydrogen sulfate 9002-89-5, **Poly(vinyl alcohol)** 9004-32-4, Carboxymethyl cellulose 9004-67-5, Methyl cellulose 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol
 RL: MOA (Modifier or additive use); USES (Uses)
 (organometal compound-containing waste gas detoxification by agent containing

cupric oxide and manganese oxide)

IT 75-33-2, Isopropylthiol 75-66-1, tert-Butylthiol 2501-94-2, tert-Butylphosphine 4262-43-5, tert-Butylarsine 4538-29-8, Isopropylphosphine 29749-04-0, Isopropylselenol 34172-59-3, tert-Butylselenol 111129-65-8, Isopropylarsine 135107-02-7 350023-54-0, 2-Propanetellurool
 RL: PEP (Physical, engineering or chemical process); POL (Pollutant); REM (Removal or disposal); OCCU (Occurrence); PROC (Process)
 (organometal compound-containing waste gas detoxification by agent containing

cupric oxide and manganese oxide)

IT 1313-13-9, Manganese dioxide, uses 1317-38-0, **Cupric oxide**, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (organometal compound-containing waste gas detoxification by agent containing

cupric oxide and manganese oxide)

IT 9002-89-5, **Poly(vinyl alcohol)**
 RL: MOA (Modifier or additive use); USES (Uses)
 (organometal compound-containing waste gas detoxification by agent containing

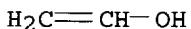
cupric oxide and manganese oxide)

RN 9002-89-5 HCPLUS
 CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O



L120 ANSWER 10 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2000:645934 HCPLUS

DN 133:239068

ED Entered STN: 15 Sep 2000

TI Plastic products with antimicrobial property

IN Sarangapani, Shantha

PA Icet, Inc., USA

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B32B027-06

ICS B32B027-30; B32B027-36; B32B027-40; C08K003-10

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17, 42, 62

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI WO 2000053413

A1

20000914

WO 2000-US5967

20000306

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
 CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-123119P P 19990306

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2000053413	ICM	B32B027-06
		ICS B32B027-30; B32B027-36; B32B027-40; C08K003-10

AB Plastic products, such as polyethylene terephthalate bottles or containers are commonly for food or cosmetic products packaging, comprise a polymeric carrier resin, food-grade preservatives or antimicrobial agents, and a polymeric substrate in a desired shape. The products are manufacture by (1) providing a polymeric substrate in a desired structure, (2) treating the substrate with a coating material comprising a polymeric carrier and antimicrobial agents, and (3) drying the coating or subjecting the treated substrate to blow molding.

ST polyethylene terephthalate container food cosmetic packaging
antimicrobial; packaging material antimicrobial

IT Urethane rubber, uses

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(butanediol-dicyclohexylmethane diisocyanate-polytetramethylene glycol, block, block, Tecoflex EG 80A; plastic products with antimicrobial property)

IT Antimicrobial agents

Bottles
Containers
Food packaging materials
Food preservatives
Packaging materials
(plastic products with antimicrobial property)

IT Polyesters, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(plastic products with antimicrobial property)

IT Polyurethanes, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(plastic products with antimicrobial property)

IT 54-21-7, Sodium salicylate 65-85-0, Benzoic acid, uses 69-72-7, Salicylic acid, uses 94-13-3, Propyl paraben 120-47-8, Ethyl paraben 148-79-8, Thiabendazole 532-31-0, Silver benzoate 582-25-2, Potassium benzoate 4075-81-4, Calcium propionate 7440-22-4, Silver, uses 8006-39-1, Terpinol 14882-18-9,

Bismuth subsalicylate 19025-97-9, Silver salicylate 36701-38-9, Silver citrate

RL: MOA (Modifier or additive use); USES (Uses)
(plastic products with antimicrobial property)

IT 25038-59-9, Polyethylene terephthalate, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(plastic products with antimicrobial property)

IT 59828-41-0, Hypol 60961-73-1, Eastar Bio Copolyester 14766 88385-51-7, Hypol 5000

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(plastic products with antimicrobial property)

IT 149642-77-3, Butanediol-1,4-dicyclohexylmethane diisocyanate-polytetramethylene glycol block copolymer

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(rubber; plastic products with antimicrobial property)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; JP 09048094 A 1997 HCPLUS

(2) Anon; JP 09057923 A 1997 HCPLUS

(3) Mawatari; US 5614568 A 1997 HCPLUS

(4) Rei; US 4895877 A 1990 HCPLUS

(5) Rei; US 5102657 A 1992 HCPLUS

(6) Sawan; US 5869073 A 1999 HCPLUS

IT 7440-22-4, Silver, uses 14882-18-9,

Bismuth subsalicylate

RL: MOA (Modifier or additive use); USES (Uses)

(plastic products with antimicrobial property)

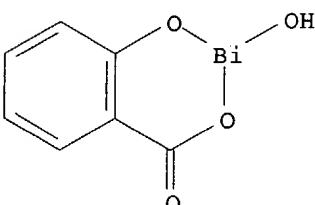
RN 7440-22-4 HCPLUS

CN Silver (8CI, 9CI) (CA INDEX NAME)

Ag

RN 14882-18-9 HCPLUS

CN 4H-1,3,2-Benzodioxabismin-4-one, 2-hydroxy- (9CI) (CA INDEX NAME)



L120 ANSWER 11 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2000:513480 HCPLUS

DN 133:140228

ED Entered STN: 28 Jul 2000

TI Novel hydrogel isolated cochleate formulations, process of preparation and their use for the delivery of biologically relevant molecules

IN Zarif, Leila; Jin, Tuo; Segarra, Ignacio; Mannino, Raphael

PA Biodelivery Sciences, Inc., USA; University of Medicine and Dentistry

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K009-127

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 10

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000042989	A2	20000727	WO 2000-US1684	20000124 <--
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				

PT, SE

US 6153217	A	20001128	US 1999-235400	19990122 <--
CA 2358505	AA	20000727	CA 2000-2358505	20000124 <--
EP 1143933	A2	20011017	EP 2000-909961	20000124 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002535267	T2	20021022	JP 2000-594446	20000124 <--
WO 2001052817	A2	20010726	WO 2001-US2299	20010124 <--
WO 2001052817	A3	20020221		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1259224	A2	20021127	EP 2001-903273	20010124 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2003529557	T2	20031007	JP 2001-552865	20010124 <--
PRAI US 1999-235400	A	19990122 <--		
WO 2000-US1684	W	20000124 <--		
US 2000-613840	A	20000711		
WO 2001-US2299	W	20010124		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2000042989	ICM	A61K009-127
US 6153217	ECLA	A61K009/127K
AB	A process for producing a small-sized, lipid-based cochleate is described. Cochleates are derived from liposomes which are suspended in an aqueous two-phase polymer solution, enabling the differential partitioning of polar mol. based-structures by phase separation. The liposome-containing two-phase polymer solution, treated with pos. charged mols. such as Ca ²⁺ or Zn ²⁺ , forms a cochleate precipitate of a particle size less than one micron. The process may be used to produce cochleates containing biol. relevant mols. Small-sized cochleates may be administered orally or through the mucosa to obtain an effective method of treatment.	
ST	liposome cochleate hydrogel oral delivery mucosa	
IT	Polymers, biological studies RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (2-phase system of immiscible; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)	
IT	Drug delivery systems (aerosols; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)	
IT	Mixing (by injection; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)	
IT	Lipids, biological studies RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (charged; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)	
IT	Essential oils RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (cinnamon; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)	
IT	Anesthetics Antibacterial agents Antitumor agents Antiviral agents	

Buffers
 Candida albicans
 Centrifugation

Detergents

Drugs
 Fungicides
 Hydrogels
 Hydrogen bond
 Immunosuppressants
 Macrophage
 Particle size distribution
 Tranquilizers
 Vasodilators

(hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Phosphatidylserines

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Antigens

Cannabinoids
 DNA
 Estrogens
 Nucleic acids
 Proteins, specific or class
 Steroids, biological studies

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems

(injections, i.m.; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems

(injections, i.v.; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems

(injections, s.c.; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems

(intradermal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems

(intrapulmonary; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Polyoxyalkylenes, biological studies

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (lipid conjugates; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Zwitterions

(lipids; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems

(liposomes, cochleates; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol.

relevant mols.)

IT Drug delivery systems
(mucosal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(nasal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Anti-inflammatory agents
(nonsteroidal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(ophthalmic; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(oral; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(parenterals; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Anti-inflammatory agents
(steroidal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(suppositories; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(transdermal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

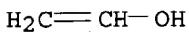
IT Liposomes
(unilamellar; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT Drug delivery systems
(vaginal; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT 29836-26-8, Octyl glucoside
RL: NUU (Other use, unclassified); USES (Uses)
(detergent; hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT 53-86-1, Indomethacin 57-41-0, Phenytoin 58-22-0, Testosterone 113-15-5D, Ergotamine, derivs. 148-82-3, Melphalan 298-46-4, Carbamazepine 512-64-1, Echinomycin 1397-89-3, Amphotericin B 1421-14-3, Propanidid 2078-54-8, Propofol 6811-55-8, Doleoylphosphatidylserine 7646-79-9, Cobalt chloride, biological studies 7646-85-7, Zinc chloride, biological studies 8067-82-1, Alphadione 9002-89-5, Polyvinylalcohol
9003-09-2, Polyvinylmethyl ether 9003-39-8, Polyvinylpyrrolidone 9004-54-0, Dextran, biological studies 10043-52-4, Calcium chloride, biological studies 11103-57-4, Vitamin a 13292-46-1, Rifampin 21829-25-4, Nifedipine 22204-53-1, Naproxen 22832-87-7, Miconazole nitrate 25316-40-9, Adriamycin 25322-68-3D, Polyethylene glycol, lipid conjugates 25702-74-3, Ficoll 29767-20-2, Teniposide 33069-62-4, Taxol 53123-88-9, Rapamycin 59277-89-3, Acyclovir 114977-28-5, Taxotere 159989-64-7, Nelfinavir 170931-04-1
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)

IT 9002-89-5, Polyvinylalcohol
 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (hydrogel-isolated cochleate formulations, process of preparation and their use for oral or mucosal delivery of biol. relevant mols.)
 RN 9002-89-5 HCPLUS
 CN Ethenol, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 557-75-5
 CMF C2 H4 O



L120 ANSWER 12 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:197615 HCPLUS
 DN 132:226650
 ED Entered STN: 28 Mar 2000
 TI Filters for deodorization and dust collection and air purifiers equipped with the filters
 IN Nojima, Hideo; Miyata, Akio; Suzuki, Kaoru; Watsuji, Toru
 PA Sharp Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM A61L009-00
 ICS A61L009-16; B01D046-00; B01D053-04
 CC 59-6 (Air Pollution and Industrial Hygiene)
 Section cross-reference(s): 47, 48, 74
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2000084056	A2	20000328	JP 1998-255026	19980909 <--
PRAI JP 1998-255026		19980909	<--	

 CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2000084056	ICM	A61L009-00
		ICS A61L009-16; B01D046-00; B01D053-04

 AB The filter comprises a 1st deodorization filter carrying a decomposition photocatalyst and an odorous substance adsorbent, a 2nd filter carrying a transition metal chelate compound for decomposition of odorous substances, and
 a high-performance particulate removal filter. Air purifier equipped with the filter and a means for feeding air through the filter is also claimed.
 Spreading of odor is prevented even when the photocatalyst is inactive.
 ST deodorization filter air purifier titania photocatalyst; HEPA filter air purifn deodorization; ULPA filter air purifn deodorization; transition metal chelate deodorizer filter; metallophthalocyanine catalyst air filter deodorization
 IT Zeolites (synthetic), uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (Cu, adsorbents; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)
 IT Zeolites (synthetic), uses
 RL: DEV (Device component use); TEM (Technical or engineered material

use); USES (Uses)
(adsorbents; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Air purification
(adsorption, filters for; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Air filters
(deodorization and purification; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Tobacco smoke
(deodorization of; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Air purification apparatus
(deodorization, filters for; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Polyurethanes, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(foams, supports; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Filters
(honeycomb, ceramic, supports; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Polyamide fibers, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(nets; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Nets
(nylon, supports; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Transition metal complexes
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(phthalocyanine; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Plastic foams
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(polyurethane, supports; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Ceramics
(porous, supports; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Metallophthalocyanines
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(transition metal complexes; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Adsorbents

Air purification apparatus

(trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT Transition metal complexes

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT 1344-28-1, Aluminum oxide (Al₂O₃), uses

RL: DEV (Device component use); USES (Uses)

(honeycomb; trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT 13463-67-7, Titanium oxide (TiO₂), uses 122403-31-0

RL: CAT (Catalyst use); DEV (Device component use); USES (Uses)

(trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

IT 64-19-7, Acetic acid, processes 75-07-0, Acetaldehyde, processes

7664-41-7, Ammonia, processes

RL: REM (Removal or disposal); PROC (Process)

(trilayered deodorization filters comprising photocatalysts and adsorbents and transition metal chelate compds. and particle removing filters)

L120 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:67579 HCAPLUS

DN 132:119581

ED Entered STN: 28 Jan 2000

TI A method for manufacturing the carrier for immobilizing a physiologically active substance

IN Kuniyoshi, Minoru; Shigehiro, Kiyotaka

PA Tosoh Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G01N033-553

ICS G01N033-545

CC 9-16 (Biochemical Methods)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2000028616	A2	20000128	JP 1998-195465	19980710 <--
PRAI JP 1998-195465		19980710	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2000028616	ICM	G01N033-553
	ICS	G01N033-545

AB A method is provided for manufacturing the carrier which possesses excellent properties suited for immobilizing a physiol. active substance such as antigen or antibody to carry out an immunol. reaction. This carrier possesses an arbitrary shape (e.g., spherical shape with an average diameter of 0.05-10mm), and a rough surface where magnetism-responsive powders (e.g., iron, nickel, iron/cobalt, silicon steel, ferrite, magnetite) is contained in a saponified part (5-100% saponification rate) of carboxylic acid vinyl-type copolymer resin (e.g., vinyl chloride/vinyl acetate, vinyl chloride/vinyl propionate, vinyl chloride/vinyl acetate/vinyl propionate, ethylene/vinyl acetate, vinylpyrrolidone/vinyl acetate) or cellulose-type

copolymer resin (e.g., cellulose acetate, cellulose acetate/propionate, cellulose acetate/butyrate). The method comprises the first step for incorporating magnetism-responsive powder into the resin by kneading, the second step for generating spherical shape using water-soluble macromol. dispersing agent (e.g., **polyvinyl alc.**), the third step for melting the solid dispersing agent (e.g., calcium carbonate, calcium hydroxide, magnesium carbonate, magnesium hydroxide, zinc oxide, zinc carbonate, strontium carbonate, barium carbonate) and making it adhesive to the surface of the resin, the fourth step for saponifying carboxylic acid vinyl groups with an alkaline agent (alkali

metal hydroxide or carbonate dissolved in water or methanol), and the fifth step for dissolving the solid dispersing agent with an acid (e.g., hydrochloric acid, sulfuric acid, nitric acid, acetic acid, phosphoric acid). An improved S/N ratio was observed in measuring TSH with anti-TSH monoclonal antibody immobilized on the carrier prepared by this method, comparing with the carrier prepared by the conventional method.

ST carrier vinyl resin cellulose immobilization immunoassay

IT Alkali metals, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(carbonate; method for manufacturing carrier for immobilizing physiol.

active

substance)

IT Vinyl compounds, uses

RL: NUU (Other use, unclassified); USES (Uses)
(carboxy-containing, polymers; method for manufacturing carrier for immobilizing
physiol. active substance)

IT **Fibers**

RL: NUU (Other use, unclassified); USES (Uses)
(cellulose acetate propionate; method for manufacturing carrier for immobilizing physiol. active substance)

IT Vinyon **fibers**

RL: NUU (Other use, unclassified); USES (Uses)
(**copolymer** with vinyl propionate; **copolymer** with vinyl propionate and vinyl acetate; method for manufacturing carrier for immobilizing physiol. active substance)

IT Polyolefin **fibers**

Polyolefin **fibers**

Synthetic polymeric **fibers**, uses

Synthetic polymeric **fibers**, uses

RL: NUU (Other use, unclassified); USES (Uses)

(ethylene-vinyl acetate; method for manufacturing carrier for immobilizing physiol. active substance)

IT Carriers

Dispersing agents

Immobilization, biochemical

Immunoassay

Magnetic powders

Saponification

Sizes (agents)

(method for manufacturing carrier for immobilizing physiol. active substance)

IT Antibodies

Antigens

RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process); USES (Uses)

(method for manufacturing carrier for immobilizing physiol. active substance)

IT Ferrites

RL: NUU (Other use, unclassified); USES (Uses)

(method for manufacturing carrier for immobilizing physiol. active substance)

IT Alkali metal hydroxides
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method for manufacturing carrier for immobilizing physiol. active substance)

IT Antibodies
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (monoclonal, to TSH; method for manufacturing carrier for immobilizing physiol. active substance)

IT Synthetic polymeric fibers, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (vinyl acetate, **copolymer** with vinylpyrrolidone; method for manufacturing carrier for immobilizing physiol. active substance)

IT Synthetic polymeric fibers, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (vinyl acetate-vinyl chloride; method for manufacturing carrier for immobilizing physiol. active substance)

IT Synthetic polymeric fibers, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (vinylpyrrolidone, **copolymer** with vinyl acetate; method for manufacturing carrier for immobilizing physiol. active substance)

IT 9002-71-5, Thyrotropin
 RL: ANT (Analyte); ANST (Analytical study)
 (method for manufacturing carrier for immobilizing physiol. active substance)

IT 67-56-1, Methanol, uses 471-34-1, Calcium carbonate, uses 513-77-9,
 Barium carbonate 546-93-0, Magnesium carbonate 1305-62-0, Calcium hydroxide, uses 1309-38-2, Magnetite (Fe₃O₄), uses 1309-42-8,
 Magnesium hydroxide 1314-13-2, Zinc oxide, uses 1633-05-2,
 Strontium carbonate 3486-35-9, Zinc carbonate 7439-89-6, Iron, uses 7440-02-0, Nickel, uses 7440-48-4, Cobalt, uses 7732-18-5, Water, uses 9002-89-5,
Polyvinyl alcohol 9004-34-6D, Cellulose, derivs., uses 9004-35-7, Cellulose acetate 9004-36-8, Cellulose butyrate acetate 11100-68-8, Steel, silicon, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for manufacturing carrier for immobilizing physiol. active substance)

IT 64-19-7, Acetic acid, reactions 7647-01-0, Hydrochloric acid, reactions 7664-38-2, Phosphoric acid, reactions 7664-93-9, Sulfuric acid, reactions 7697-37-2, Nitric acid, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method for manufacturing carrier for immobilizing physiol. active substance)

IT 7439-89-6, Iron, uses 9002-89-5,
Polyvinyl alcohol
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for manufacturing carrier for immobilizing physiol. active substance)

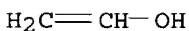
RN 7439-89-6 HCAPLUS
 CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 9002-89-5 HCAPLUS
 CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
 CMF C2 H4 O



L120 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:434624 HCAPLUS
 DN 131:180857
 ED Entered STN: 15 Jul 1999
 TI Microspheres of chitosan/**poly(vinylalcohol)**
 incorporating tetrasulphonated copper (II) phthalocyanine:
 preparation and characterization
 AU Stolberg, J.; Laranjeira, M. C. M.; Sanchez, M. N. M.; Klug, M.; Favere,
 V. T.
 CS QUITECH - Grupo de pesquisa em Quitinas e Aplicacoes Technologicas da
 UFSC, Departamento de Quimica, Universidade Federal de Santa Catarina,
 Florianopolis, 88040-900, Brazil
 SO Journal of Microencapsulation (1999), 16(4), 431-438
 CODEN: JOMIEF; ISSN: 0265-2048
 PB Taylor & Francis Ltd.
 DT Journal
 LA English
 CC 4-1 (Toxicology)
 AB Tetradsulfonated copper (II) phthalocyanine (TCP), in the salt
 form, was incorporated into a blend of chitosan (CTS)/**poly(vinylalc.)** (PVA) and microspheres were produced by using
 the method of salt coacervation with 20% sodium sulfate. Spectroscopic
 anal., DSC and TGA were carried out to characterize the form in which the
 macro-complex was immobilized in the blend. Alkaline treatment of the
 coagulating medium produces species which are more stable, but with a
 different morphol. observed by SEM. Microspheres coagulated in sodium
 sulfate and also in an alkaline salt medium (0.5 and 2.0M NaOH) were exposed
 to a solution of the dye, methylene blue, at an initial concentration of 7
 mg/L and
 maintained in contact for 14 h at 26°. The kinetic data revealed a
 decrease in the capacity of sorption of the microspheres that had received
 the alkaline treatment. It is proposed that the new morphol. attributed to
 these species blocks some sites for complex formation, making them
 inaccessible to the dye.
 ST chitosan PVA microsphere copper phthalocyanine
 encapsulation; carcinogen detection chitosan PVA copper
 phthalocyanine
 IT **Carcinogens**
 Coacervation
 Microspheres
 Sorption
 Sorption kinetics
 (preparation and characterization of microspheres of chitosan/PVA
 incorporating copper phthalocyanine tetrasulfonate)
 IT 9002-89-5, **Poly(vinyl alcohol)**
 9012-76-4, Chitosan
 RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or
 chemical process); POF (Polymer in formulation); ANST (Analytical study);
 PROC (Process); USES (Uses)
 (blends; preparation and characterization of microspheres of chitosan/
 PVA incorporating copper phthalocyanine
 tetrasulfonate)
 IT 26400-93-1, **Copper (II) phthalocyanine tetrasulfonate**
 RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or
 chemical process); ANST (Analytical study); PROC (Process)
 (preparation and characterization of microspheres of chitosan/PVA
 incorporating copper phthalocyanine tetrasulfonate)
 IT 61-73-4, Methylene blue

RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (preparation and characterization of microspheres of chitosan/PVA
 incorporating copper phthalocyanine tetrasulfonate)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Blagrove, R; Australian Journal of Chemistry 1972, V25, P2553 HCPLUS
- (2) Hayatsu, H; Chemistry and Pharmacy Bulletin 1986, V34, P944 HCPLUS
- (3) Hayatsu, H; Gann 1983, V74, P472 HCPLUS
- (4) Hayatsu, H; Journal of Chromatography 1992, V597, P37 HCPLUS
- (5) Kirk-Othmer; Encyclopaedia of Chemical Technology 1983, V23, P849
- (6) Miguez, M; Journal of Microencapsulation 1997, V14, P639 HCPLUS
- (7) Moreira, J; Quimica Nova 1995, V18, P362 HCPLUS
- (8) Povey, A; Carcinogenesis 1990, V11, P1989 HCPLUS
- (9) Safarik, I; Water Research 1995, V29, P101 HCPLUS

IT 9002-89-5, Poly(vinyl alcohol)

RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or
 chemical process); POF (Polymer in formulation); ANST (Analytical study);
 PROC (Process); USES (Uses)
 (blends; preparation and characterization of microspheres of chitosan/
 PVA incorporating copper phthalocyanine
 tetrasulfonate)

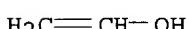
RN 9002-89-5 HCPLUS

CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O



L120 ANSWER 15 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1999:392556 HCPLUS

DN 131:29590

ED Entered STN: 28 Jun 1999

TI Methods of measuring analytes with barrier webs

IN Caldwell, J. Michael

PA Nextec Applications, Inc., USA

SO U.S., 55 pp., Cont.-in-part of U.S. Ser. No. 472,568, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C12Q001-70

ICS G01N033-543

NCL 435005000

CC 9-16 (Biochemical Methods)

Section cross-reference(s): 38

FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5912116	A	19990615	US 1995-486651	19950607 <--
	US 5004643	A	19910402	US 1989-319778	19890310 <--
	CA 1338232	A1	19960409	CA 1989-593680	19890314 <--
	CA 1339587	A1	19971216	CA 1989-593681	19890314 <--
	US 5209965	A	19930511	US 1991-680645	19910402 <--
	US 5418051	A	19950523	US 1993-17855	19930216 <--
	US 6312523	B1	20011106	US 1999-406080	19990927 <--
	US 2002088396	A1	20020711	US 2001-982250	20011016 <--
PRAI	US 1988-167630	B2	19880314 <--		
	US 1988-167643	B2	19880314 <--		

US 1988-167797	B2	19880314	<--
US 1988-167869	B2	19880314	<--
US 1989-319778	A1	19890310	<--
US 1991-680645	A1	19910402	<--
US 1993-17855	A2	19930216	<--
US 1995-407191	A2	19950317	<--
US 1995-442983	B2	19950517	<--
US 1995-472568	B2	19950607	<--
US 1997-962698	A3	19971103	<--
US 1999-406080	A1	19990927	<--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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US 5912116	ICM	C12Q001-70
	ICS	G01N033-543
	NCL	435005000
US 2002088396	ECLA	A61F013/00; D06N003/04F; D06N003/12; D06N003/12F; D21H017/59; D21H019/32; D21H025/06; A61F013/15C3; A61L015/26; A61L015/52; B05C005/02D1B; B05C011/02; C08J009/40; C08J009/42; C14C009/0; C14C011/00; D04H001/58; D04H013/00B2; D06B015/08; D06M015/256; D06M015/263; D06M015/356T; D06M; D06M015/643; D06M015/653; D06M015/657; D06N003/00B

AB The present invention includes novel barrier webs that have certain desirable phys. qualities such as water resistance, increased durability, improved barrier qualities and the like. The present invention further comprises a barrier web comprising a web that has been treated with a curable shear thinned thixotropic polymer composition, the fabric being adapted to be substantially impermeable to liqs., permeable to gases and impermeable to microorganisms. The barrier webs of the present invention are either impermeable to all microorganisms or are impermeable to microorganisms of certain sizes. The present invention also includes fabrics that are capable of either selective binding certain microorganisms, particles or mols. depending upon what binding partners are incorporated into the polymer before application to the fabric.

ST polymer fabric barrier web body fluid analyte

IT Silicone rubber, uses

RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(SLE 5100, SLE 5106, SLE 5300, SLE 5500; methods of measuring analytes
with barrier webs)

IT Polysiloxanes, uses

RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(Siloprene LSR 2540/01; methods of measuring analytes with barrier
webs)

IT Polyamide fibers, uses

RL: DEV (Device component use); USES (Uses)
(aramid; methods of measuring analytes with barrier webs)

IT Synthetic polymeric fibers, uses

RL: DEV (Device component use); USES (Uses)
(butylphenol-formaldehyde-phenol; methods of measuring analytes with
barrier webs)

IT Silicone rubber, uses

RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(di-Me, vinyl group-terminated; methods of measuring analytes with
barrier webs)

IT Silicone rubber, uses

RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(di-Me; methods of measuring analytes with barrier webs)

IT Pleura

(effusion; methods of measuring analytes with barrier webs)

IT Phenolic resins, uses

Phenolic resins, uses

RL: DEV (Device component use); USES (Uses)

(fiber; methods of measuring analytes with barrier webs)
IT Polysiloxanes, uses
RL: DEV (Device component use); USES (Uses)
(fluoro; methods of measuring analytes with barrier webs)

IT Textiles
(linen; methods of measuring analytes with barrier webs)

IT Antimicrobial agents

Ascites

Bacteria (Eubacteria)

Blood analysis

Blood plasma

Blood serum

Cell

Cerebrospinal fluid

Cotton fibers

Dyes

Ebola virus

Films

Foams

Hepatitis B virus

Hepatitis C virus

Human immunodeficiency virus

Jute

Latex

Leather

Leather substitutes

Lymph

Membrane filters

Microorganism

Mucus

Pigments, nonbiological

Saliva

Semen

Silk

Streptococcus group A

Synovial fluid

Urine

Virus

Wool
(methods of measuring analytes with barrier webs)

IT Actins

Antibodies

Antigens

Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(methods of measuring analytes with barrier webs)

IT Alkenes, uses
RL: DEV (Device component use); USES (Uses)
(methods of measuring analytes with barrier webs)

IT Fluoropolymers, uses
RL: DEV (Device component use); USES (Uses)
(methods of measuring analytes with barrier webs)

IT Glass, uses
RL: DEV (Device component use); USES (Uses)
(methods of measuring analytes with barrier webs)

IT Polyamide fibers, uses
RL: DEV (Device component use); USES (Uses)
(methods of measuring analytes with barrier webs)

IT Polyamides, uses
RL: DEV (Device component use); USES (Uses)
(methods of measuring analytes with barrier webs)

IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)

(methods of measuring analytes with barrier webs)

IT Polyimides, uses
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Polymers, uses
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Polysulfones, uses
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Polyurethanes, uses
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Rayon, uses
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Spandex fibers
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Vinyon fibers
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Proteins, general, uses
 RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT Synthetic polymeric fibers, uses
 RL: DEV (Device component use); USES (Uses)
 (phenolic resins; methods of measuring analytes with barrier webs)

IT Polyurethanes, uses
 Polyurethanes, uses
 RL: DEV (Device component use); USES (Uses)
 (polysiloxane-; methods of measuring analytes with barrier webs)

IT Polysiloxanes, uses
 Polysiloxanes, uses
 RL: DEV (Device component use); USES (Uses)
 (polyurethane-; methods of measuring analytes with barrier webs)

IT Cell
 (stem; methods of measuring analytes with barrier webs)

IT 58-85-5, Biotin
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT 51-79-6, Urethane 64-19-7, Acetic acid, uses 2669-89-8, Vinyl
 9002-84-0 9004-34-6, Cellulose, uses 9004-35-7, Cellulose
 acetate 9004-70-0, Nitrocellulose 25038-59-9, uses
 RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT 7440-50-8, Copper, uses
 RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT 7553-56-2, Iodine, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (methods of measuring analytes with barrier webs)

IT 131-56-6, Uvinul 400
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (methods of measuring analytes with barrier webs)

IT 75-35-4D, Saran, polymers
 RL: DEV (Device component use); USES (Uses)
 (saran; methods of measuring analytes with barrier webs)

RE.CNT 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
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 (2) Anon; RU 422469 1974

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- (4) Anon; WO 8908553 1989 HCAPLUS
- (5) Anon; WO 8908554 1989 HCAPLUS
- (6) Anon; WO 8908555 1989 HCAPLUS
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- (8) Beauchamp; US 2575577 1951 HCAPLUS
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- (10) Bouverot; US 4442060 1984
- (11) Braun; US 4828556 1989
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- (13) Caldwell; US 2773050 1956 HCAPLUS
- (14) Caldwell; US 2839479 1958 HCAPLUS
- (15) Caldwell; US 2956884 1960 HCAPLUS
- (16) Caldwell; US 2976182 1961 HCAPLUS
- (17) Caldwell; US 3026293 1962 HCAPLUS
- (18) Caldwell; US 3165423 1965 HCAPLUS
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- (20) Caldwell; US 3265529 1966
- (21) Caldwell; US 4666765 1987 HCAPLUS
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- (41) Hartlein; US 3639155 1972 HCAPLUS
- (42) Hayes; US 4108825 1978 HCAPLUS
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- (45) Jensen; US 4753978 1988 HCAPLUS
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- (47) Kalinowski; US 4311760 1982 HCAPLUS
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- (51) Lauchenauer; US 4588614 1986 HCAPLUS
- (52) Le; US 4895806 1990 HCAPLUS
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- (62) Modic; US 4500584 1985
- (63) Moeller; US 4216252 1980 HCAPLUS
- (64) Monroe; US 4250075 1981 HCAPLUS
- (65) Naka; US 4560611 1985

- (66) Ohashi; US 4013615 1977 HCPLUS
- (67) Olsen; US 4297265 1981 HCPLUS
- (68) Owen, M; Ind Eng Chem Prod Res Dev 1980, V19, P97 HCPLUS
- (69) Peters; US 5013669 1991
- (70) Pines; US 4504549 1985 HCPLUS
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- (78) Svec; US 4952349 1990 HCPLUS
- (79) Sweet; US 4427801 1984 HCPLUS
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- (85) West; US 4287261 1981 HCPLUS
- (86) West; US 4369231 1983 HCPLUS
- (87) Yamazaki; US 4110392 1978
- (88) Yankus; US 5322727 1994
- (89) Yeo; US 4758239 1988

IT 9002-84-0

RL: DEV (Device component use); USES (Uses)
 (methods of measuring analytes with barrier webs)

RN 9002-84-0 HCPLUS

CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3

CMF C2 F4



IT 7440-50-8, Copper, uses

RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
 (methods of measuring analytes with barrier webs)

RN 7440-50-8 HCPLUS

CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L120 ANSWER 16 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1999:330536 HCPLUS

DN 130:327866

ED Entered STN: 28 May 1999

TI Treatment of metal surfaces for microbiocidal activity

IN Koeppen, Hans-joachim; Wagner, Gerhard; Woywod, Britta

PA Volkswagen A.-G., Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C23C030-00
 ICS B60H003-06
 CC 56-6 (Nonferrous Metals and Alloys)
 Section cross-reference(s): 59

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19750128	A1	19990520	DE 1997-19750128	19971113 <--
PRAI	DE 1997-19750128		19971113 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DE 19750128	ICM	C23C030-00
	ICS	B60H003-06

AB To eliminate a musty odor generated in automobile air conditioning units, Al alloy evaporator lamellas are coated with Cu which has a microbiocidal efficiency. Cu is deposited either directly or after deposition of an intermediate layer (e.g., Ni layer). Optionally, Cu is deposited in a form of a lacquer with embedded Cu powder.

ST automobile air conditioning odor removal; copper coating aluminum microbiocidal effect

IT Air conditioners
 (automotive; removal of odor by copper coating of aluminum evaporator lamellas)

IT Coating materials
 (copper coating of aluminum evaporator lamellas for removal of odor from automotive air conditioners)

IT Lacquers
 (for copper coating of aluminum evaporator lamellas for removal of odor from automotive air conditioners)

IT Chromates
 Silicates, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (intermediate layer for copper coating of aluminum evaporator lamellas)

IT Acrylic polymers, uses
 Epoxy resins, uses
 Polyesters, uses
 Polyurethanes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lacquer for copper coating of aluminum evaporator lamellas for removal of odor from automotive air conditioners)

IT Health hazard
 Industrial hygiene
 Odor and Odorous substances
 (removal of odor from automotive air conditioners)

IT Coating process
 Evaporators
 (removal of odor from automotive air conditioners by copper coating of aluminum evaporator lamellas)

IT Aluminum alloy
 RL: TEM (Technical or engineered material use); USES (Uses)
 (removal of odor from automotive air conditioners by copper coating of aluminum evaporator lamellas)

IT 7440-02-0, Nickel, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (intermediate layer for copper coating of aluminum evaporator lamellas)

IT 9004-36-8, Cellulose acetobutyrate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lacquer for copper coating of aluminum evaporator lamellas for removal of odor from automotive air conditioners)

IT 7440-50-8, Copper, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (removal of odor from automotive air conditioners by copper
 coating of aluminum evaporator lamellas)

IT 7440-50-8, Copper, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (removal of odor from automotive air conditioners by copper
 coating of aluminum evaporator lamellas)

RN 7440-50-8 HCPLUS
 CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L120 ANSWER 17 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:745125 HCPLUS
 DN 129:347345
 ED Entered STN: 24 Nov 1998
 TI Encrustation-resistant and antibacterial coatings for medical
 applications
 IN Sarangapani, Shantha
 PA Icet, Inc., USA
 SO PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C08K003-10
 ICS C08K005-10; C08K005-09; C08K005-51
 CC 63-8 (Pharmaceuticals)
 Section cross-reference(s): 42
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9850461	A1	19981112	WO 1998-US9000	19980504
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5877243	A	19990302	US 1997-851306	19970505
	EP 980402	A1	20000223	EP 1998-923327	19980504
	EP 980402	B1	20030402		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001525694	T2	20011211	JP 1998-548310	19980504
	AT 236214	E	20030415	AT 1998-923327	19980504
PRAI	US 1997-851306	A	19970505		
	WO 1998-US9000	W	19980504		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9850461	ICM	C08K003-10
	ICS	C08K005-10; C08K005-09; C08K005-51

AB The title coatings comprise acids selected from aminocarboxylic acids, tricarboxylic acids, amino acids, phosphonic acids, and phenolic compds., polymers, and Ag powder. The coatings resist bacterial colonization and encrustation and are useful in medical devices and urol. applications. The coating typically includes acidic chelating components, reactively bound to a hydrophilic polyurethane prepolymer along with noble metal combinations or antibacterials. The acidic and noble metal combinations can also be incorporated as additives during plastic molding of medical devices. Continuous antibacterial surfaces are provided by such coatings and materials.

ST encrustation resistance **antibacterial** coating medical application

IT Chelating agents (acidic; encrustation-resistant and **antibacterial** coatings for medical applications)

IT Coating materials (bactericidal, encrustation-resistant; encrustation-resistant and **antibacterial** coatings for medical applications)

IT Medical goods (coatings; encrustation-resistant and **antibacterial** coatings for medical applications)

IT **Antibacterial** agents (encrustation-resistant and **antibacterial** coatings for medical applications)

IT **Noble metals**
RL: MOA (Modifier or additive use); USES (Uses) (encrustation-resistant and **antibacterial** coatings for medical applications)

IT **Polyurethanes, uses**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (encrustation-resistant and **antibacterial** coatings for medical applications)

IT 60-00-4, EDTA, uses 67-43-6, DTPA 77-92-9, Citric acid, uses 102-29-4, Resorcinol monoacetate 107-35-7, Taurine 407-41-0 27754-99-0, Poly(vinyl phosphonic acid)
RL: TEM (Technical or engineered material use); USES (Uses) (encrustation-resistant and **antibacterial** coatings for medical applications)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Neidrach; US 3798750 A 1974
(2) Sakamoto; US 4642104 A 1987 HCPLUS
(3) Sarangapani; US 5328954 A 1994 HCPLUS

L120 ANSWER 18 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
AN 1998:682179 HCPLUS
DN 129:287544
ED Entered STN: 28 Oct 1998
TI Diagnostic devices and apparatus for the controlled movement of reagents without membranes
IN Buechler, Kenneth Francis
PA Biosite Diagnostics Inc., USA
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B01L003-00
ICS G01N035-00; G01N033-48; G01N033-50
CC 9-1 (Biochemical Methods)

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9843739	A2	19981008	WO 1998-US5681	19980324 <--
	WO 9843739	A3	20010607		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			

US 6156270	A	20001205	US 1997-828041	19970327 <--
AU 9865790	A1	19981022	AU 1998-65790	19980324 <--
EP 1019193	A2	20000719	EP 1998-911959	19980324 <--
EP 1019193	B1	20030604		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001526778	T2	20011218	JP 1998-541728	19980324 <--
JP 3531941	B2	20040531		
AT 242054	E	20030615	AT 1998-911959	19980324 <--
PRAI US 1997-828041	A	19970327	<--	
US 1992-887526	A2	19920521	<--	
US 1993-65528	XX	19930519	<--	
US 1995-447895	A2	19950523	<--	
US 1995-447981	A2	19950523	<--	
WO 1998-US5681	W	19980324	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 9843739	ICM	B01L003-00
	ICS	G01N035-00; G01N033-48; G01N033-50
WO 9843739	ECLA	B01L003/00C6C2; B01L003/00C6M; B29C065/08; G01N033/558; G01N035/00
US 6156270	ECLA	B01J019/00R; B01L003/00C6C2; B01L003/00C6C; G01N033/543K; G01N033/558; G01N035/00

AB The assay devices, assay systems and device components of this invention comprise at least two opposing surfaces disposed a capillary distance apart, at least one of which is capable of immobilizing at least one target ligand or a conjugate in an amount related to the presence or amount of target ligand in the sample from a fluid sample in a zone for controlled fluid movement to, through or away from the zone. The inventive device components may be incorporated into conventional assay devices with membranes or may be used in the inventive membrane-less devices herein described and claimed. These components include flow control elements, measurement elements, time gates, elements for the elimination of pipetting steps, and generally, elements for the controlled flow, timing, delivery, incubation, separation, washing and other steps of the assay process.

ST diagnostic device app reagent membrane

IT Polymers, uses

RL: DEV (Device component use); USES (Uses)
(Hydrophobic; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Films

(Metalized; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Diagnosis

(apparatus; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polymers, uses

RL: DEV (Device component use); USES (Uses)
(co-; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Apparatus

(diagnosis; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Analytical apparatus

Ceramics

Immunoassay

Laminated materials

Latex

Membranes, nonbiological

Washing

(diagnostic devices and apparatus for controlled movement of reagents

without membranes)

IT Antibodies

Antigens

 Carbohydrates, analysis

 Ligands

 Receptors

 RL: ANT (Analyte); ANST (Analytical study)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Agglutinins and Lectins

 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Avidins

 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Reagents

 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Acrylic polymers, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Fluoropolymers, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Fluoropolymers, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Glass, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Metals, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Plastics, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polyamides, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polycarbonates, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polyesters, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polyimides, uses

 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polymer blends

 RL: DEV (Device component use); USES (Uses)

(diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polyolefins
 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polysiloxanes, uses
 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polyurethanes, uses
 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Rubber, uses
 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Foils
 (metallized; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Nucleotides, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (sequences, complementary; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT Polymers, uses
 RL: DEV (Device component use); USES (Uses)
 (silicon-containing; diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT 58-85-5, Biotin
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT 100-42-5D, Styrene, polymers containing 105-57-7D, Acetal, copolymers and homopolymers 7440-21-3, Silicon, uses 7440-21-3D, Silicon, elastomers, uses 7440-22-4, Silver, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses 7704-34-9D, Sulfur, polymers containing, uses 7782-40-3, Diamond, uses 7782-50-5D, Chlorine, polymers containing, uses 9002-84-0, Teflon 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene latex 9004-70-0, Cellulose nitrate 9011-14-7, Polymethylmethacrylate
 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

IT 7440-22-4, Silver, uses 7440-50-8, Copper, uses 9002-84-0, Teflon
 RL: DEV (Device component use); USES (Uses)
 (diagnostic devices and apparatus for controlled movement of reagents without membranes)

RN 7440-22-4 HCAPLUS
 CN Silver (8CI, 9CI) (CA INDEX NAME)

Ag

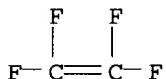
RN 7440-50-8 HCAPLUS
 CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 9002-84-0 HCPLUS
 CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3
 CMF C2 F4



L120 ANSWER 19 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:8069 HCPLUS
 DN 128:124558
 ED Entered STN: 08 Jan 1998
 TI New approaches to toxicity: a seven-gas predictive model and toxicant suppressants
 AU Levin, Barbara C.
 CS Biotechnology Division, National Institute of Standards and Technology,
 Gaithersburg, MD, 20899, USA
 SO Drug and Chemical Toxicology (1977) (1997), 20(4), 271-280
 CODEN: DCTODJ; ISSN: 0148-0545
 PB Marcel Dekker, Inc.
 DT Journal
 LA English
 CC 4-1 (Toxicology)
 Section cross-reference(s): 59
 AB Two new research approaches in combustion toxicol. are: 1. the prediction of smoke toxicity from math. equations, which are empirically derived from, expts. on the toxicol. interactions of complex fire gas mixts. and 2. the use of toxicant suppressants in materials or products to prevent the formation of toxic combustion products. The predictive approach consists of burning materials using a bench-scale method that simulates realistic fire conditions, measuring the concns. of the primary fire gases - CO, CO₂, low O₂, HCN, HCl, HBr, and NO₂ - and predicting the toxicity of the smoke using either the 6- or 7-gas N-Gas Model. These models are based on the results of toxicol. studies of these primary gases as individual gases and as complex mixts. The predicted toxic potency is checked with a small number of animal (Fischer 344 male rats) tests to assure that an unanticipated toxic gas is not generated or an unexpected synergistic or antagonistic effect has not occurred. The results indicate if the smoke from a material or product is extremely toxic (based on mass consumed at the predicted toxic level) or unusually toxic (based on the gases deemed responsible). The predictions based on bench-scale laboratory tests have been validated with full-scale room burns of a limited number of materials of widely differing characteristics chosen to challenge the system. The advantages of this new approach are 1. the number of test animals is minimized by predicting the toxic potency from the chemical anal. of the smoke, 2. smoke may be produced under conditions that simulate the fire scenario of concern, 3. fewer tests are needed, thereby reducing the overall cost of the testing and 4. information is obtained on both the toxic potency of the smoke and the responsible gases. The N-gas models have been developed into the N-gas method (described in this paper) and these results have been used in computations of fire hazard. The 6-gas model is now part of the international standard ISO 13344 approved by 16 member countries of the international stds. organization (ISO) and is also included in the U.S. national standard ASTM E1678 approved by the American Society for Testing and Materials (ASTM). In addition, the 6-gas model is

used in the American National Standard-NFPA 269 - approved by the National Fire Protection Association (Quincy, MA). The second new research approach, toxicant suppressants, examines the potential of chemical compds., which when added to a material, to inhibit or reduce the concentration of a specific toxic gas normally generated during the material's thermal decomposition. The effectiveness of this approach was demonstrated at the National Institute of Stds. and Technol. (NIST) when HCN generation was reduced by 90% and the resultant toxicity of the combustion products was lowered by 50% when a flexible polyurethane foam (FPU) was treated with 0.1% (by weight) cuprous oxide (Cu₂O). Although melamine-treated FPU foams are being promoted as more fire safe than standard foams, a melamine-treated foam generated 10 times more HCN than a foam without melamine. The addition of Cu₂O to this melamine foam also reduced the HCN generation by 90%.

ST toxicity gas predictive model toxicant suppressant

IT Polyurethanes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(foam; new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT Toxicants

Toxicants

(gaseous; new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT Fire

Hypoxia, animal

Smoke

Toxicity

(new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT Simulation and Modeling, biological

(predictive model; new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT Toxicants

(suppressants; new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT Gases

Gases

(toxic; new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT 74-90-8, Hydrocyanic acid, biological studies 124-38-9, Carbon dioxide, biological studies 630-08-0, Carbon monoxide, biological studies
7647-01-0, Hydrochloric acid, biological studies 10035-10-6, Hydrobromic acid, biological studies 10102-44-0, Nitrogen dioxide, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

IT 108-78-1, Melamine, biological studies 1317-39-1, Cuprous oxide, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(new approaches to toxicity - a seven-gas predictive model and toxicant suppressants)

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Babrauskas, V; NIST Technical Note 1284 1991
- (3) Babrauskas, V; Toxic Potency Measurement for Fire Hazard Analysis 1991
- (4) Braun, E; Fire Toxicity Scaling 1987, NBSIR 87-3510
- (5) Braun, E; J Fire Sciences 1990, V8, P63 HCPLUS
- (6) Braun, E; Large-Scale Compartment Fire Toxicity Study:Comparison with Small-Scale Toxicity Test Results 1988, NBSIR 88-3764
- (7) Hartzell, G; "Fire and Polymers:Hazards Identification and Prevention", ACS

Symposium Series 425 1990, P12 HCPLUS
 (8) Jellinek, H; J Polymer Sci 1978, V10, P253 HCPLUS
 (9) Levin, B; "The Proceedings of the Fire Retardant Chemicals Association Fall Conference" Scottsdale 1989, AR, 107-112
 (10) Levin, B; Chapter 20, ACS Symposium Series 599, "Fire and Polymers II" 1995, P293 HCPLUS
 (11) Levin, B; Effects of Combustion Conditions and Scaling on the Generation of Hydrogen Cyanide and Toxicity from Flexible Polyurethane Foam with and without Copper Compounds 1992, NISTIR 4989
 (12) Levin, B; Fire and Materials 1985, V9, P125 HCPLUS
 (13) Levin, B; First Annual Report to the International Copper Research Association, Inc from the National Institute of Standards and Technology 1988
 (14) Levin, B; Fundam Appl Toxicol 1987, V9, P236 HCPLUS
 (15) Levin, B; Further Development of a Test Method for the Assessment of the Acute Inhalation Toxicity of Combustion Products 1982
 (16) Levin, B; Journal of Research of the National Institute of Standards and Technology 1991, V96, P741 HCPLUS
 (17) Levin, B; Polyurethane '88, Proceedings 31st Soc of Plastics Meeting 1988, P249 HCPLUS
 (18) Levin, B; Proceedings of the Ninth Joint Panel Meeting of the U S-Japan (UJNR) Panel on Fire Research and Safety 1988, NBSIR 88-3753
 (19) Levin, B; Second Annual Report to the International Copper Association, Ltd from the National Institute of Standards and Technology 1989
 (20) Levin, B; Synergistic Effects of Nitrogen Dioxide and Carbon Dioxide Following Acute Inhalation Exposures in Rats 1989, NISTIR 89-4105
 (21) Levin, B; The Effect of Copper Additives on the Flammability Characteristics of Flexible Polyurethane Foam 1990, NISTIR 4441
 (22) Levin, B; The Toxicologist 1985, V5, P127
 (23) Levin, B; The Toxicologist 1991, V11, P222
 (24) Levin, B; Toxicology 1987, V47, P135 HCPLUS
 (25) Levin, B; Toxicology 1996, V115, P89 HCPLUS
 (26) Levin, B; Toxicology Letters 1992, V64/65, P257
 (27) Switzer, W; Personal communication
 (28) Weil, E; J Fire Sci 1995, V13, P104 HCPLUS

L120 ANSWER 20 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1994:686661 HCPLUS
 DN 121:286661
 ED Entered STN: 10 Dec 1994
 TI Encrusting and bacterial resistant coatings for medical applications
 IN Sarangapani, Shantha
 PA ICET, Inc., USA
 SO U.S., 20 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C08L075-00
 NCL 524589000
 CC 63-7 (Pharmaceuticals)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5328954	A	19940712	US 1993-48489	19930416
	WO 9424181	A1	19941027	WO 1994-US4107	19940414
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9467044	A1	19941108	AU 1994-67044	19940414
PRAI	US 1993-48489		19930416		
	WO 1994-US4107		19940414		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

US 5328954 ICM C08L075-00
 NCL 524589000

AB Disclosed is an encrustation and bacterial-resistant coating for use on medical devices and in other medical-related applications. The coating includes a reaction product formed by the covalent linkage of a hydrophilic **polyurethane** prepolymer and aminopolycarboxylic acid. A urease inhibitor and/or an antibacterial agent may also be added to the coating. Examples include reaction products of Hypol 5000 with EDTA, resorcinol monoacetate, Nitroxolin, or iminodiacetic acid.

ST medical coating **polyurethane** aminocarboxylic acid

IT Bactericides, Disinfectants, and Antiseptics
 Medical goods
 (encrusting and bacterial resistant coatings for medical applications)

IT Medical goods
 (catheters, encrusting and bacterial resistant coatings for medical applications)

IT Lenses
 (contact, encrusting and bacterial resistant coatings for medical applications)

IT Amino acids, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polycarboxylic, encrusting and bacterial resistant coatings for medical applications)

IT **Urethane polymers**, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (reaction products, with aminopolycarboxylic acids; encrusting and bacterial resistant coatings for medical applications)

IT 108-77-0, Cyanuric chloride 506-68-3, Cyanogen bromide
 RL: CAT (Catalyst use); USES (Uses)
 (encrusting and bacterial resistant coatings for medical applications)

IT 60-00-4DP, EDTA, reaction products with Hypol 102-29-4DP, Resorcinol monoacetate, reaction products with Hypol 142-73-4DP, Iminodiacetic acid, reaction products with Hypol 4008-48-4DP, Nitroxolin, reaction products with Hypol 88385-51-7DP, Hypol 5000, reaction products with aminopolycarboxylic acids
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (encrusting and bacterial resistant coatings for medical applications)

IT 1939-36-2D, reaction products with Hypol
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (encrusting and bacterial resistant coatings for medical applications)

IT 9002-13-5, Urease
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (inhibitors; encrusting and bacterial resistant coatings for medical applications)

L120 ANSWER 21 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1994:212037 HCPLUS

DN 120:212037

ED Entered STN: 30 Apr 1994

TI Immobilization of biomolecules on perfluorocarbon surfaces

IN Eveleigh, John W. D.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 428,154, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C12N011-06

ICS C12N011-08; G01N033-549; G01N033-545

NCL 435181000

CC 9-5 (Biochemical Methods)

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

 PI US 5270193 A 19931214 US 1991-785887 19911024 <--
 PRAI US 1989-428154 19891027 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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US 5270193	ICM	C12N011-06
	ICS	C12N011-08; G01N033-549; G01N033-545
	NCL	435181000

AB A ligand or ligand receptor is securely but reversibly attached to a perfluorocarbon carrier with a water-soluble polymer, a perfluorocarbon anchoring group, and optionally a linker. For example, the biomol. is covalently attached to the polymer, followed by covalently attaching the anchoring group and attaching the product to the carrier. Alternatively, the anchoring group is covalently attached to the polymer, followed by attachment of the product to the carrier and then covalently attaching a biomol. to the polymer. The polymer may be starch, dextran, agarose, PEG, or poly(vinyl alc.). The immobilized ligand or receptor is useful in affinity sepn. and immunoassays. Thus, the triazine dye, Procion Red H-3B, was conjugated with poly(vinyl alc.) in aqueous solution, and the conjugate was acylated with pentafluorobenzoyl chloride and adsorbed onto a Perflex 35S solid perfluorocarbon chromatog. carrier. A column packed with the dye-bearing carrier was used for chromatog. purification of crude muscle lactate dehydrogenase (purification factor 4.8, recovery 71%).

ST ligand immobilization perfluorocarbon; receptor immobilization perfluorocarbon; dye immobilization perfluorocarbon; enzyme chromatog dye immobilization perfluorocarbon

IT Albumins, preparation

RL: ANT (Analyte); ANST (Analytical study)
 (chromatog. of, on perfluorocarbon-immobilized triazine dye)

IT Ligands

Receptors

RL: PROC (Process)
 (immobilization of, on perfluorocarbon carrier)

IT Dyes

Antibodies

Antigens

Coenzymes

Enzymes

Haptens

Nucleic acids

Vitamins

RL: ANST (Analytical study)
 (immobilization of, on perfluorocarbons, perfluoro anchoring group and water-soluble polymer in)

IT Linking agents

(in ligand or receptor immobilization on perfluorocarbons)

IT Perfluorocarbons

RL: ANST (Analytical study)
 (ligand or receptor immobilization on)

IT Immobilization, biochemical

(of ligand or receptor, on perfluorocarbon, perfluoro anchoring group and water-soluble polymer in)

IT Proteins, specific or class

RL: ANST (Analytical study)
 (A, immobilization of, on perfluorocarbon, perfluoro anchoring group and water-soluble polymer in)

IT Perfluoro compounds

RL: ANST (Analytical study)
 (acid chlorides, in ligand or receptor immobilization on perfluorocarbons)

IT Polymers, compounds

RL: ANST (Analytical study)
 (conjugates, water-soluble, with ligand or receptor, immobilization of, on perfluorocarbon)

IT Proteins, specific or class
 RL: ANST (Analytical study)
 (ligand-binding, immobilization of, on perfluorocarbons, perfluoro anchoring group and water-soluble polymer in)

IT Acid chlorides
 Anhydrides
 RL: ANST (Analytical study)
 (perfluoro, in ligand or receptor immobilization on perfluorocarbons)

IT 9001-60-9, Lactate dehydrogenase
 RL: ANT (Analyte); ANST (Analytical study)
 (chromatog. of, on perfluorocarbon-immobilized triazine dye)

IT 7440-50-8, Copper, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (complexation of, by perfluorocarbon-immobilized dye-iminodiacetic acid conjugate)

IT 9002-89-5D, Poly(vinyl alcohol),
 conjugates with ligand or receptor 9002-89-5D, Poly(vinyl alcohol), conjugates with perfluorobenzoyl chloride and triazine dye 9004-54-0D, Dextran, conjugates with ligand or receptor 9005-25-8D, Starch, conjugates with ligand or receptor 9012-36-6D, Agarose, conjugates with ligand or receptor
 RL: PROC (Process)
 (immobilization of, on perfluorocarbon)

IT 108-77-0, Trichloro-s-triazine 12236-82-7, Procion Blue H-B
 23211-47-4, Procion Red H-3B
 RL: ANST (Analytical study)
 (immobilization of, on perfluorocarbon, perfluoro anchoring group and water-soluble polymer in)

IT 23211-47-4D, Procion Red H-3B, poly(vinyl alc.) conjugates
 RL: PROC (Process)
 (immobilization of, on perfluorocarbon, perfluoro anchoring group in)

IT 108-77-0D, Trichloro-s-triazine, condensation products with iminodiacetic acid 142-73-4D, Iminodiacetic acid, condensation products with trichlorotriazine
 RL: ANST (Analytical study)
 (immobilized on perfluorocarbon, copper binding by)

IT 58-68-4, NADH
 RL: ANST (Analytical study)
 (in lactate dehydrogenase chromatog. on perfluorocarbon-immobilized triazine dye)

IT 75-13-8D, Isocyanic acid, esters, perfluoro 1-acyl derivs., perfluoro
 RL: ANST (Analytical study)
 (in ligand or receptor immobilization on perfluorocarbons)

IT 2251-50-5, Pentafluorobenzoyl chloride
 RL: ANST (Analytical study)
 (in triazine dye immobilization on perfluorocarbon carrier)

IT 306-94-5, Perfluorodecalin 9002-84-0, Poly(tetrafluoroethylene) 24937-79-9, Poly(vinylidene fluoride) 24981-14-4, Poly(vinyl fluoride)
 RL: ANST (Analytical study)
 (ligand or receptor immobilization on)

IT 153967-01-2, Perflex 35S
 RL: ANST (Analytical study)
 (triazine dye immobilization on, perfluoro anchoring group and water-soluble polymer in)

IT 7440-50-8, Copper, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (complexation of, by perfluorocarbon-immobilized dye-iminodiacetic acid

conjugate)

RN 7440-50-8 HCPLUS
 CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT 9002-89-5D, Poly(vinyl alcohol),
 conjugates with ligand or receptor
 RL: PROC (Process)
 (immobilization of, on perfluorocarbon)
 RN 9002-89-5 HCPLUS
 CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

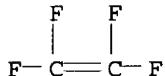
CRN 557-75-5
 CMF C2 H4 O

 $\text{H}_2\text{C}=\text{CH}-\text{OH}$

IT 9002-84-0, Poly(tetrafluoroethylene)
 RL: ANST (Analytical study)
 (ligand or receptor immobilization on)
 RN 9002-84-0 HCPLUS
 CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3
 CMF C2 F4



L120 ANSWER 22 OF 24 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1990:218347 HCPLUS

DN 112:218347

ED Entered STN: 09 Jun 1990

TI Poly(tetrafluoroethylene) composite membrane for
chemical warfare gas sensors

IN Mallouk, Robert S.; Branca, Phillip A.

PA Gore, W. L., and Associates, Inc., USA

SO PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DT Patent

LA English

IC B01D013-04; G01N033-07

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 80

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8912490	A2	19891228	WO 1989-US2617	19890615
	WO 8912490	A3	19900125		
	W: AU, JP				

RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
 US 4902308 A 19900220 US 1988-206884 19880615
 AU 8942026 A1 19900112 AU 1989-42026 19890615
 EP 419579 A1 19910403 EP 1989-910035 19890615
 EP 419579 B1 19921028
 R: DE, FR, GB, IT, SE
 JP 03502425 T2 19910606 JP 1989-509527 19890615
 JP 06067462 B4 19940831
 PRAI US 1988-206884 19880615
 WO 1989-US2617 19890615

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 8912490	IC	B01D013-04IC G01N033-07
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AB A porous composite membrane, useful as a scavenger of unwanted gas components which cause false-pos. detection of organic nerve gas agents in sensors, comprises a film of porous, expanded **poly(tetrafluoroethylene)** (I) whose surfaces, both exterior and within its pores, are coated with a metal salt of a perfluoro cation exchanger. Thus, an expanded I membrane substrate was coated with perfluorosulfonic acid polymer (II) solution in EtOH, dried, placed in a polypropylene frame, wetted with aqueous iso-PrOH, and treated with AgNO₃ to cause **Ag** exchange. The dried Ag-exchanged I-II membrane was placed into gas sensors and tested for effectiveness against 10 ppm HCN showing 31-110% increase in lifetime compared to the control (**Ag**-exchanged Gelman SA 6404 membrane).

ST **polytetrafluoroethylene** expanded composite membrane; polyperfluorosulfonic acid **PTFE** membrane; **silver** ion polyperfluorosulfonic acid membrane; gas sensor **PTFE** composite membrane; scavenger gas sensor membrane; nerve gas sensor **PTFE** membrane

IT Cation exchangers
(perfluoro, salts, composites with expanded **PTFE**, membranes, for organic nerve gas sensors)

IT Chemical warfare agents
(nerve gases, organic, sensors for, porous composite membranes for, long-life)

IT 127195-72-6

RL: USES (Uses)
(composites with expanded **PTFE**, membranes, for organic nerve gas sensors)

IT 9002-84-0, Poly(**tetrafluoroethylene**)

RL: USES (Uses)
(expanded, membranes, composite, for organic nerve gas sensors)

IT 9002-84-0, Poly(**tetrafluoroethylene**)

RL: USES (Uses)
(expanded, membranes, composite, for organic nerve gas sensors)

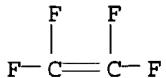
RN 9002-84-0 HCPLUS

CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3

CMF C2 F4



AN 1982:587379 HCPLUS
DN 97:187379
ED Entered STN: 12 May 1984
TI Adsorption of mercury vapor by indoor surfaces
AU Spedding, D. J.; Hamilton, R. B.
CS Chem. Dep., Univ. Auckland, Auckland, N. Z.
SO Environmental Research (1982), 29(1), 30-41
CODEN: ENVRAL; ISSN: 0013-9351
DT Journal
LA English
CC 59-2 (Air Pollution and Industrial Hygiene)
AB The adsorption of Hg vapor by a variety of indoor surfaces has been measured in the laboratory using ^{203}Hg . The highest sorption occurred on a PVC-based flooring material followed by water-based paint surfaces and oil-based paint surfaces. An investigation of the kinetics of adsorption indicated that Hg vapor is poorly sorbed by solid nonliving surfaces in a manner suggesting very weak interactions with the surface. Desorption rates for surface-adsorbed Hg were obtained and used in a model room situation to evaluate the contribution of Hg from this source to its vapor concentration in a contaminated indoor environment.
ST mercury adsorption indoor surface
IT Air pollution
 (by mercury desorption from indoor surface)
IT Polyester fibers, properties
 RL: PRP (Properties)
 (fabrics, dsorption on and desorption from indoor surface of)
IT Carpets
 (mercury adsorption on and desorption from indoor surface of)
IT Galvanized iron and steel
Glass, oxide
 RL: PRP (Properties)
 (mercury adsorption on and desorption from indoor surface of)
IT Adsorption
 (of mercury by indoor surfaces)
IT Desorption
 (of mercury from indoor surface)
IT Polyesters, properties
Rayon, properties
 (fabric, mercury adsorption on and desorption from indoor surface of)
IT Coating materials
 (paint, mercury adsorption on and desorption from indoor surface of)
IT Coating materials
 (paraffin wax, mercury adsorption on and desorption from indoor surface of)
IT Building materials
 (particle board, mercury adsorption on and desorption from indoor surface of)
IT Coating materials
 (polyurethane, mercury adsorption on and desorption from indoor surface of)
IT Cotton
 (textile, mercury adsorption on and desorption from indoor surface of)
IT Paper
 (wall-, mercury adsorption on and desorption from indoor surface of)
IT 7439-97-6, properties
 RL: PRP (Properties)
 (adsorption and desorption of, on and from indoor surfaces)
IT 7429-90-5, properties 7440-50-8, properties 9002-86-2
9002-88-4 9011-14-7 12597-69-2, properties
 RL: PRP (Properties)
 (mercury adsorption on and desorption from indoor surface of)
IT 7440-50-8, properties
 RL: PRP (Properties)

(mercury adsorption on and desorption from indoor surface of)
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L120 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:481065 HCAPLUS
DN 83:81065
ED Entered STN: 12 May 1984
TI Fireproofing of **fibers**
IN Tsumori, Takaya; Ikegami, Yoshitaka; Tsukazoe, Kiyoharu; Fukatsu, Kazuhiko; Okabe, Yukari
PA Kohjin Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
NCL 42D23; 42D22; 25(1)C121.83
CC 39-2 (**Textiles**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50024531	A2	19750315	JP 1973-75661	19730706 <--
	JP 52006371	B4	19770222		
PRAI	JP 1973-75661		19730706 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 50024531	NCL	42D23

AB Impregnation of **fibers** spun from blends of poly(**vinylic alc.**) (I) containing ≥ 10 weight% of a halogen-containing polymer with a composition containing **Zn** [7440-66-6] or a **Zn** compound so as to give **fibers** containing 0.1-15 weight% **Zn** gives finished **fibers** or products; and optionally spinning a mixture of I containing ≥ 10 weight% of a halogen-containing polymer and **Zn** or **Zn** compds. [0.1-15 weight% (based on **fibers**) **Zn**] gives **fibers**. The purpose of the **Zn** compound is to reduce smoke emission (HCl) during combustion. Thus, a fabric (prepared from **fibers** spun from a blend of PVC and partially acetalized I at 40:60 weight ratio) was immersed in an aqueous mixture containing 5 weight% **Zn**(NO₃)₂ [7779-88-6] for 2 min, padded [5 weight% **Zn**(NO₃)₂], and dried to give a fabric. On burning the resulting fabric the amount of smoke evolved was 60 weight% less than that obtained from the untreated fabric. Poly(vinylidene chloride) [9002-85-1] and ZnO [1314-13-2] were also used.

ST PVC vinal **fiber** fireproofing; safety fabric combustion; **zinc** smoke redn agent fabric

IT Health hazard

(from smoke of vinal-vinyon fabric combustion, **zinc** compound treatment for amelioration of)

IT Smoke
(inhibitors of, **zinc** compds. as, for vinal-vinyon blend **fibers**)

IT Vinyon **fibers**
RL: USES (Uses)
(poly(**vinylic alc.**))-containing **zinc** compound treatment of, for smoke reduction during combustion)

IT Vinal **fibers**
RL: USES (Uses)

(vinyl halide polymer-containing, zinc compound treatment of, for smoke reduction during combustion)

IT 9002-85-1
RL: USES (Uses)
(fiber, containing PVC and poly(vinyl alc.), zinc compound treatment of, for smoke reduction during combustion)

IT 1314-13-2, uses and miscellaneous 7779-88-6
RL: USES (Uses)
(smoke control agents, for PVC-vinal fibers)

IT 7440-66-6, uses and miscellaneous
RL: USES (Uses)
(smoke control agents, for poly(vinyl halide)-vinal fibers)

IT 7440-66-6, uses and miscellaneous
RL: USES (Uses)
(smoke control agents, for poly(vinyl halide)-vinal fibers)

RN 7440-66-6 HCPLUS
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

=>